

The Canadian Builder

:: and Carpenter ::

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TORONTO, MAY, 1913

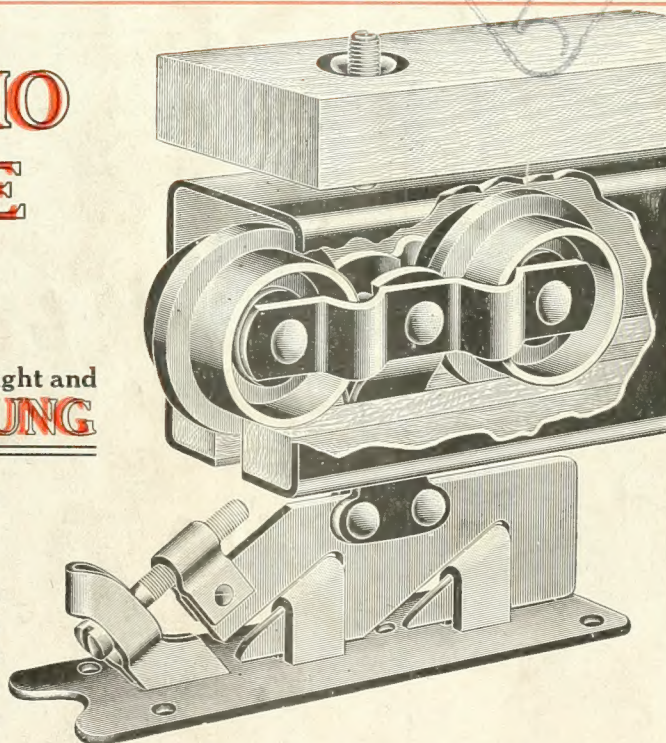
No. 5

THE MAN WHO WANTS TO BE SURE

That his door will HANG right and RUN right and STAY right will use a **CENTER-HUNG** hanger.

Because a center-hung hanger distributes weight evenly and always hangs straight.

The best House Door Hanger made is the Richards-Wilcox Royal, No. W222, a center-hung, ball-bearing hanger, steel truck, and lathe-turned wheels running on maple in enclosed box track,—adjustment in both track and hanger. Header shipped with track.



Richards-Wilcox Royal House Door Hanger
(Specify W222)

Specified by Leading Architects and
Used by Careful Builders Everywhere

We Make

"A Hanger
for any
door that
slides."

Richards-Wilcox



CANADIAN COMPANY, LTD.
LONDON, ONTARIO.



Write us for
Catalogue Showing
Hangers for

House
Barn
Garage

or any other
purpose

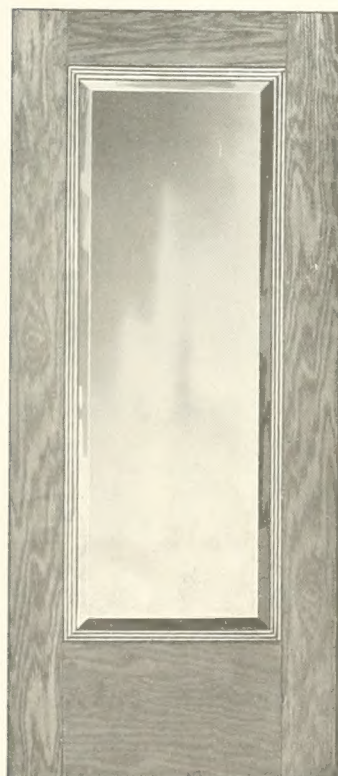
Midland Planing Mill Products

Announcement Extraordinary

Midland Special Veneered Doors

Positively the Lowest-Priced High-Grade Veneered Doors on the Canadian Market

We direct attention to our New Product, the "Midland Special" Veneered Doors, especially designed to meet the competition of all comers, Americans preferred. These doors are our standard high-grade, hand-finished product—the peer of any veneer door made. To get the price and output they are standardized. But we make them in any size you require.



61-M

Three
Designs

Plain
Red Oak

ALL
SIZES

Bolection
Moulded

Bench
Finished

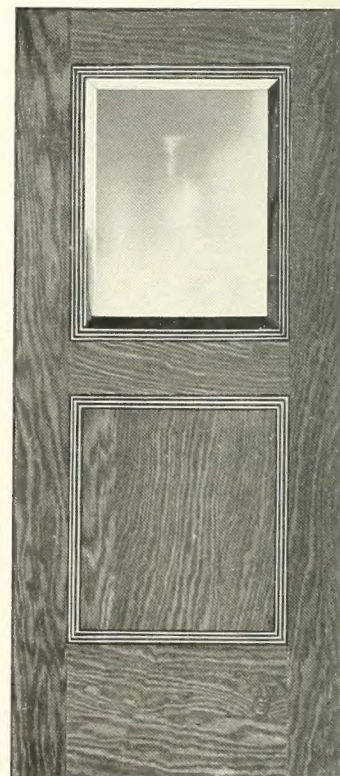


60-M

1 3-4
Inches
Thick

5 3-4
Inch
Stiles and
Rails

15 3-4
Inch
Bottom
Rail



612

You can't beat the Price from St. Johns to Vancouver

Send for booklet, "The Midland Special" giving complete description, prices and discounts. Complete line of Veneered Doors listed in our regular Veneer Door Catalogue.

Georgian Bay Shook Mills, Limited

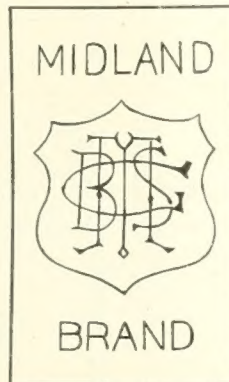
Midland, Ontario

MANUFACTURERS FROM THE TREE TO THE FINISHED PRODUCT

Midland Planing Mill Products

**Midland
Hardwood**

This Mark on



**Brand
Flooring**

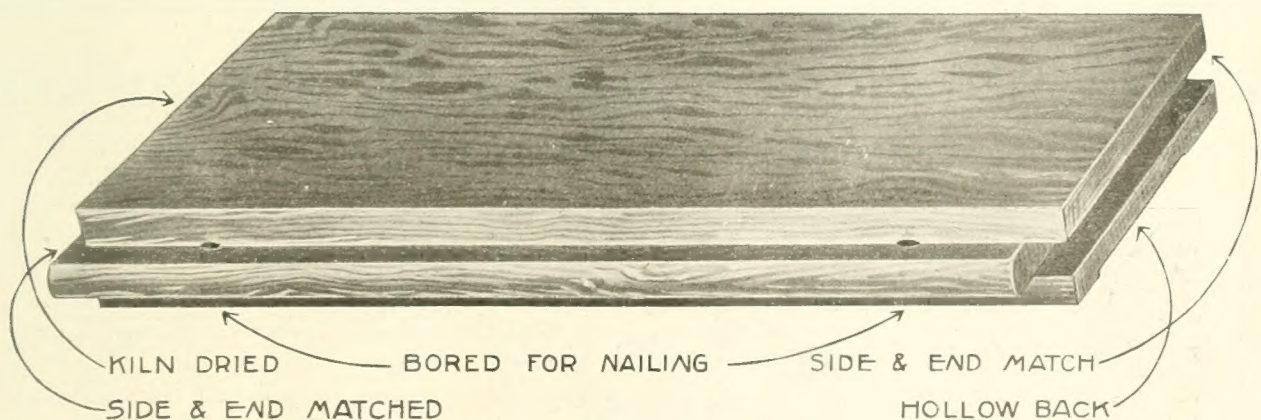
Every Piece.

The Timber Limits, near Midland, from which we draw our supply, produce the best Maple and Beech flooring stock in North America.

We own the Limits, cut the Timber, saw the Lumber in our Saw Mill at Thunder Bay, and manufacture the Flooring in our Planing Mill at Midland.

From Tree to Finished Product.

Output—Fifteen Thousand Feet per Day.



Kiln-Dried, Tongued and Grooved, End Matched, Hollow Backed, Bored for Nails, Bundled with Wire.

Maple, Beech, Plain Oak, Quarter Cut Oak, Birch.

Standard Grading Rules—Select, Clear, No. 1, and Factory.

Thicknesses—Thirteen Sixteenths ($\frac{13}{16}$), Nine Sixteenths ($\frac{9}{16}$), Three Eighths ($\frac{3}{8}$).

Georgian Bay Shook Mills, Limited

Midland, Ontario

MANUFACTURERS FROM THE TREE TO THE FINISHED PRODUCT

The "Eveready" Rig Makes Your Profits Big

PULL away from the planing mill—with its exorbitant charges and expensive delays. Do your mill work and all sawing, on the job, with the "Eveready"—at a tremendous saving of time and money. Our records prove that the

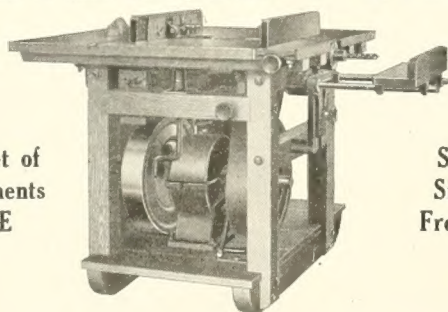


"Eveready"
SAW RIG
Does Six Men's Work

Besides cross-cut and rip sawing, it joints, sands, jig-saws, grooves, bores, miters and grinds tools—attachments for all this come free. Sturdy, rigid and strong—yet three men easily move it anywhere. **Sold on six-day free trial.** Write for folders on this and on Oshkosh Mixers and power pumps. Live agents wanted in open territory.

OSHKOSH MFG. CO.

520 S. Main Street, OSHKOSH, WIS., U.S.A.



Full Set of
Attachments
FREE

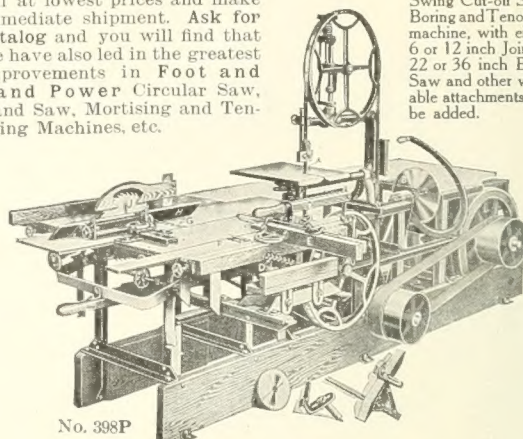
Sold on
Six Day
Free Trial.

Parks Portable Single and Combination Woodworking Outfits

We are the originators of the Circular Saw, Band Saw, Jointer Combination; our latest innovation **Swing Cut-off Saw** on same base; long table surface; saw pulls across timber instead of two men pushing long timbers across saw. All machines ready for instant use. Patents on improvements applied for.

Machines are made in large quantities which enable us to sell at lowest prices and make immediate shipment. Ask for catalog and you will find that we have also led in the greatest improvements in **Foot and Hand Power Circular Saw, Band Saw, Mortising and Tenoning Machines, etc.**

Circular Rip and Cross-Cut Saw, Swing Cut-off Saw, Boring and Tenoning machine, with either 6 or 12 inch Jointer; 22 or 36 inch Band Saw and other valuable attachments can be added.



No. 398P

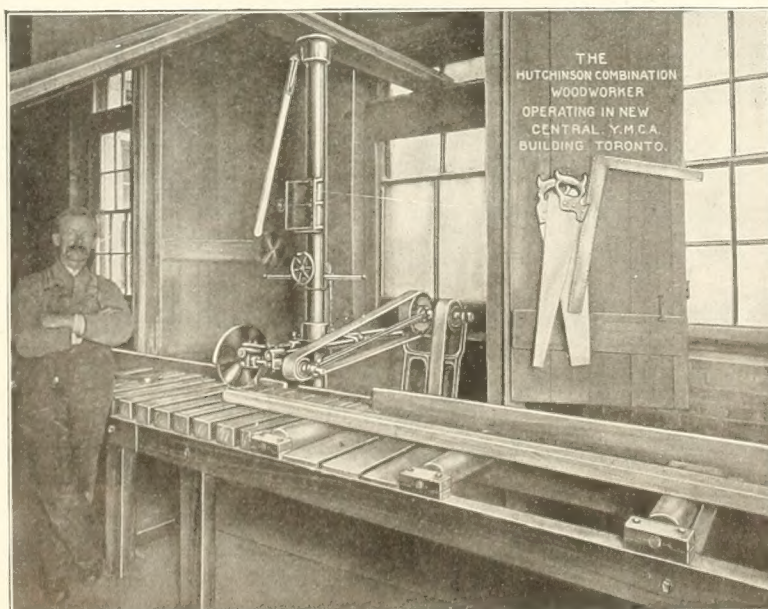
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The Parks Ball Bearing Machine Co.

1501 Knowlton St., Cincinnati, Ohio, U.S.A.

Hutchinson Combination Woodworker

A Guaranteed TIME and LABOR SAVING Machine



Write now for catalogue giving full particulars of the machine.
It's free to readers of *The Canadian Builder*.

Proof of Saving This Machine Will Effect

Mr. M. Hutchinson, Toronto

Dear Sir:—In regard to the machine you installed in my factory, I have given it a fair trial and found it very satisfactory.

I have just finished an order for sorting cases for the Toronto Post Office, in which there were 5000 saw cuts and 1500 dado cuts required.

One man with your machine completed all this in 16 hours, whereas, in the old way, I reckon it would have taken him a couple of weeks.

I have also found it a great time-saver in getting out window frame and stair material.

Wishing you continued success, yours truly,

WM. WILLIAMSON.

Office, Mill and Factory:
137-143 Woodbine Ave., Toronto.

READ WHAT IT WILL DO

The *Hutchinson Woodworker* is particularly adapted for the following every-day work in any carpenter shop or building under construction: Cutting Studs, Rafters, Braces; Boring for Dowelling, Tenoning, Dadoing, Pulley Stiles, Window Sills and Door Jams; Routing Stair-Stringers, Mitreing of any kind, Tool Grinding, etc.

The *Hutchinson Woodworker* can be set up on any job or in a shop within an hour.

M. Hutchinson
1011 Eastern Ave., TORONTO

To Contractors and Builders

Now is the season for placing your orders
for

**Rough Lumber—Hardwood
and Pine Flooring Trim, and
Doors—Ready Roofing
and Wallboard**

Send in your bills and let us quote on
your requirements, or call at any of our
offices.

Canada Lumber Company

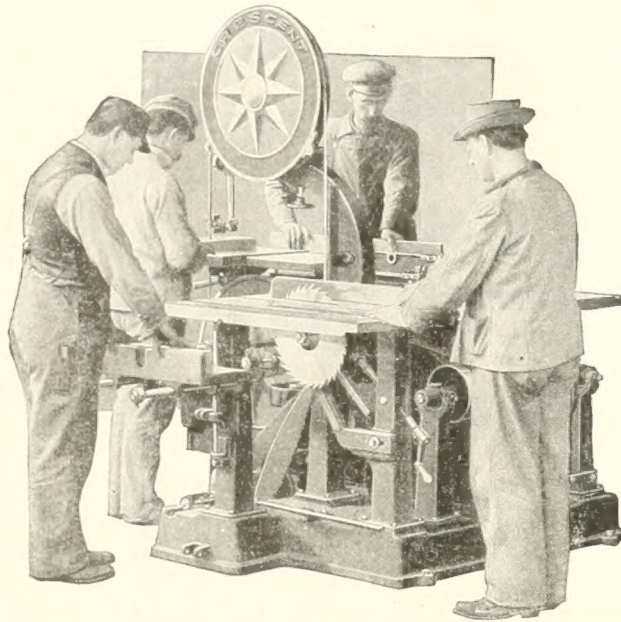
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Mill and Yard:
Cor. Church St. & C.P. Ry.
WESTON, ONT.

Distributing Yard:
1090-1104 King Street West
TORONTO

"Crescent" Universal Wood-Worker



In designing the "Crescent" no pains have been spared to make it a machine that will fill every requirement of the average woodworking shop. It is heavily built of the best material and is thoroughly practical and efficient for every use for which it is recommended. It is not as low in cost as some other makes, but to the user who looks to "value" rather than to low first cost we have a machine he can not afford to pass by in favor of any other. It weighs 3200 lbs., and is recommended, when fully equipped, for ripping, cross-cutting, band sawing, jointing, rabbeting, mortising, tenoning, dadoing, etc., etc.

Send for Catalogue
and Prices

*We make a Specialty of outfitting Wood-Working
Mills with complete equipment of Machinery.*

J. L. Neilson & Co., 602 Main St., Winnipeg, Man

Why Not Take Your Own Levels?

and eliminate the expense of having an engineer do this. Buy one of our

Builders' and Architects' Convertible Levels and Transits

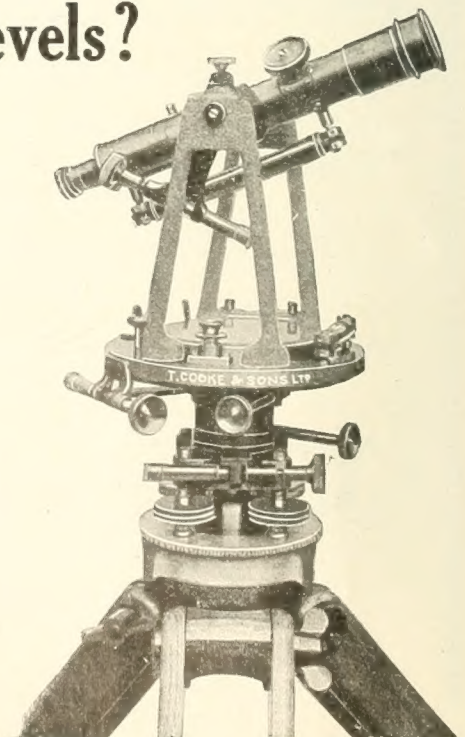
This is an age of specialization and progress. Old fashioned methods mean time wasted; and time with YOU means MONEY.

Our Scientific Technical Books, Instruments, Tee Squares, Levels, Transits, Tapes, Blue-Print Paper, Etc., will help you make the most of your time and save you good hard cash.

Catalogues of any of these lines, and particulars about our Builder's, Transit, free to readers of this paper. When writing, let us know you saw this in "The Builder."

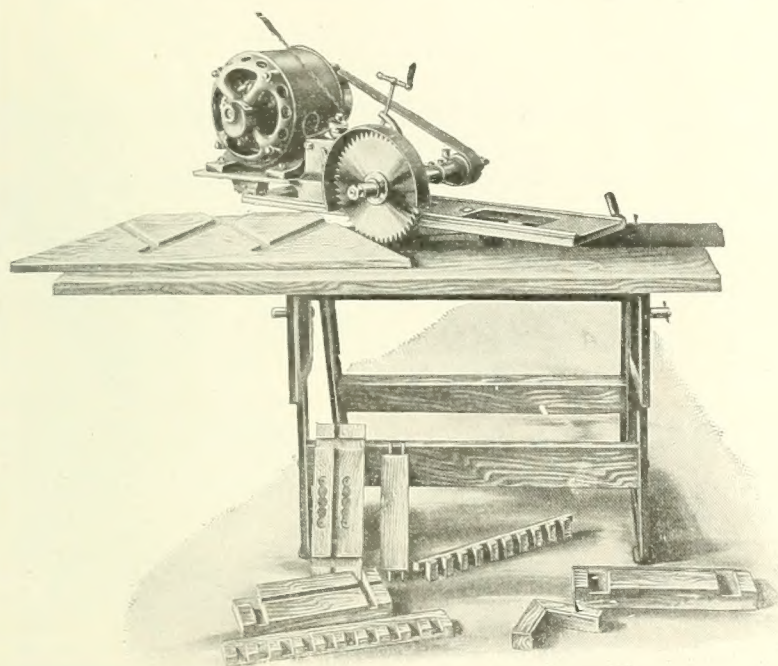
The Hughes Owens Co., Limited

Montreal, 237 Notre Dame West; Ottawa, 529 Sussex St.; Toronto, Art Metropole, 241 Yonge St.; Winnipeg, 312 Ross Ave.; Vancouver, 566 Richards St.



Builder's Transit

You can increase your output and reduce your costs



The Elliot Combination Woodworker: No. 2 Machine, cuts 3 inches thick.

The Elliot Woodworker No. 2

cross cuts, rips, mitres, dadoes, bores and grinds; will house out stair string in any wood and do practically anything required by the builder and carpenter.

A very simple machine to operate, yet does not easily get out of order. Operates from any electric lamp socket. No builder or carpenter should be without it.

The Elliot Scroll Saw and Shaper

A very useful machine and essential to the economical and efficient conduct of your workshop.

A great labor-saving device, easily operated and can be set up in two minutes.

Cuts 2 inches thick and can be operated with 1-4 or 1-2 h.p. motor, run by belt drive, or in conjunction with the Elliot Woodworker.

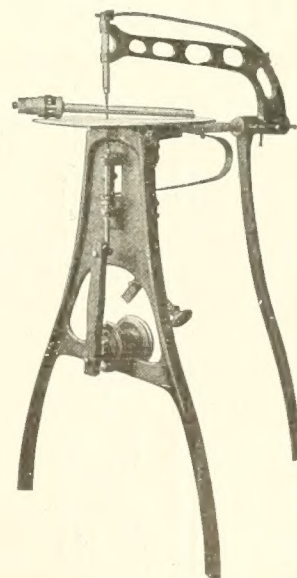
It will pay you to make enquiries at once

There's only one way to look at the purchase of these machines—from the standpoint of *economy*.

The *Elliot Woodworker* and the *Elliot Scroll Saw and Shaper* will increase your output many times over and save from 30 to 40 per cent. of your labor bills.

You can verify these facts by communicating with any builder or carpenter using them.

When in the vicinity of our factory, call in and let us give you a demonstration



The Elliot Scroll Saw and Shaper

W. A. ELLIOT

Bathurst and College Streets
TORONTO

You Can Try **The WEBER DOUBLE ACTING Floor Scraper** Five Days Free

Give the Weber a thorough try-out right out on the job. Then if you don't want it, return it. Send for full details, also catalog showing the

Weber Automatic Sharpening Device, Folding Scaffold Bracket, Folding Saw Clamp, and Handy Cabinet Scraper.

THE WEBER MFG. CO., 676 71st Ave., West Allis, Wis. - Chicago Office, 704 Mortimer Bldg.

BRAID & McCURDY, 204 Farmer Bldg., Winnipeg, Canada; A. D. MASSON, 30 St. Nicholas St., Quebec, Canada; D. MASSON & CO., 67 Bleury St., Montreal Canada

Champion ^{Double Disc} Floor Surfacer

Will Surface Your Cement, Terrazzo, Marble and Concrete Floors

Better, and for less cost, than any machine in use, which its many users can testify to. Because it has 64 sq. in. carborundum on two 12-inch discs revolving 225 R. P. M., gives it a large capacity at a low cost. Can use in small spaces, and surfaces close to the walls.

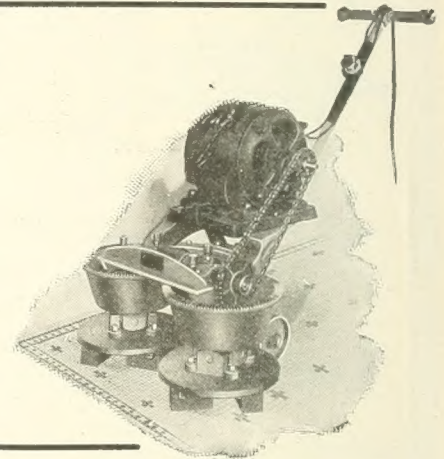
Strongly built. Fewest wearing parts. Simple and easy to operate.

For ten years we have built the best Floor Surfacing Machines in the world, for surfacing all kinds of floors.

Will do more and better work, and outwear any machine in use.

Write for Prices and our Free Booklets
We sell direct to the trade

The American Floor Surfacing Machine Co., Toledo, Ohio



What Are These Men Doing?



Just What This Man Will
Do In The **SAME TIME**
WITH A
FOX FLOOR SCRAPER

Get your order in early. The following Canadian dealers can supply you now.

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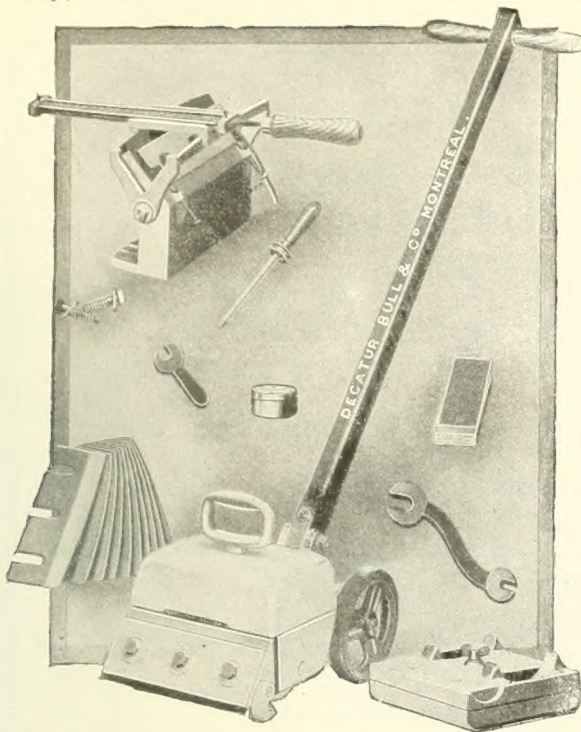
SASKATOON, Sask.
Canadian Fairbanks Co., Limited

SHERBROOKE, P.Q., CANADA
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Where careful workmanship is required the **Fox Floor Scraper** stands supreme.

EASY RUNNING—SIMPLE—LOW PRICED.

Manufactured by **the FOX SUPPLY CO., Brooklyn, Wis.**



"THE ACME" FLOOR SCRAPING OUTFIT

is acknowledged by over three thousand users to be the best and most complete hand operated floor scraping outfit on the market.

The scraper works automatically—a simple pull on the handle is all that is necessary. No stooping. No lifting.

The **ACME BLADE SHARPENER** is the only device of this kind, and is fully protected by patents. With it an unskilled person can sharpen a floor scraping blade perfectly in a few minutes' time, insuring rapid and accurate work.

The **SANDER** attachment gives that smooth finished appearance to the floor demanded by present day builders.

If you want to have your floor finished perfectly then investigate the merits of the **ACME FLOOR SCRAPING OUTFIT**.

Write NOW for booklet giving full detailed information

DECATUR, BULL & CO., 23 Jurors St., Montreal, Can.

Manufactured by JOSEPH MOITKE, Milwaukee, Wis., U.S.A.

IT WORKS LIKE A PLANE The Boss Floor Scraper

The Boss is the only Floor Scraper made that will plane a floor without leaving a square cut where knife first starts cutting. Why? Because the Boss is made with a Gauge on front, to which is attached a pear-shaped wheel which raises when machine is pulled and lets the knife down gradually.

The Boss can be set for any thickness of shaving; it also can be set for any shearing cut right or left, up or down, to suit the kind of lumber.

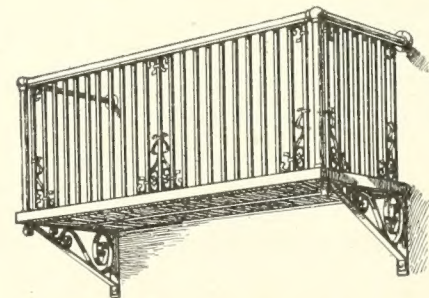
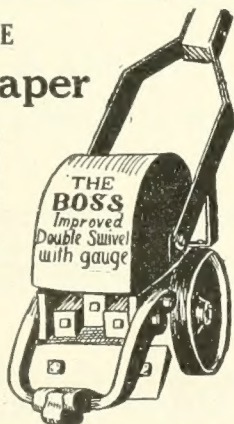
It is guaranteed to give absolute satisfaction.

G. J. KEPPLINGER

Main Office:

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Manufactured also in London, Canada



Wrought Iron Balconies Porch Railings Stair Railings Fire Escapes

Builders' Iron and Wire Work

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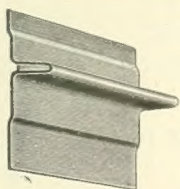
Dennis Wire & Iron Works Co.

London, Ont.

Limited

Toronto Branch

36 LOMBARD STREET



The "Peace" Patent Improved Metal Weather Strip For Windows and Doors

To Carpenters and Builders this weather-strip constitutes a necessary part of the equipment in the building of factories, offices and residential property. It is wind and dust proof, and reduces fuel bills. Windows work easier with than without it. It does away with storm sash, and lasts a lifetime. Write for illustrated pamphlet or further information to

WILLIAM PEACE CO., LIMITED

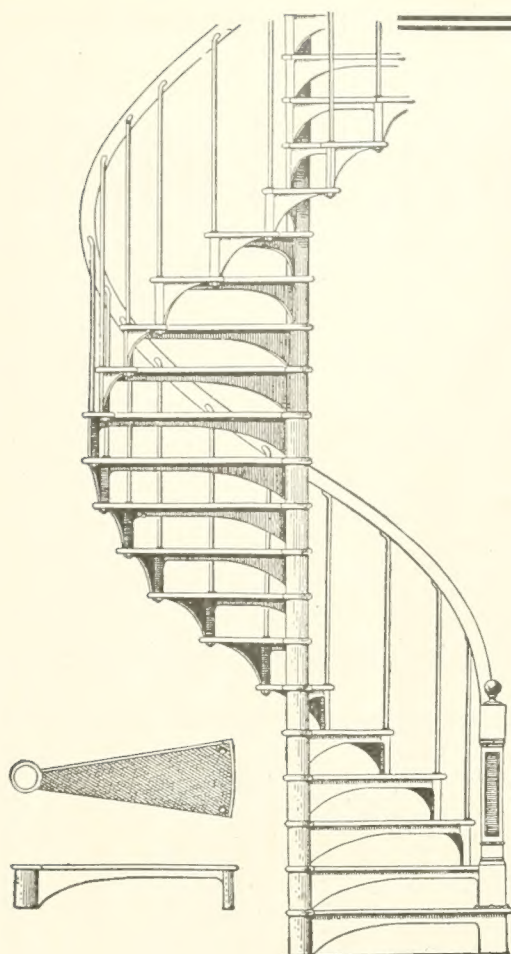
Bank of Hamilton Building, Hamilton, Ont.

Phone 286

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Five Reasons for Subscribing to The Canadian Builder

It publishes plans of actual buildings suitable for erection by the average builder. It aims at raising the standard of the trade in Canada. It contains items of practical value in every department of the trade. It furnishes special articles by leading experts every month. It gives news of Builders' Exchanges throughout the country.



GIVE US A CHANCE

TO FIGURE ON YOUR

IRON STAIRS

We are equipped to fabricate and erect any design in

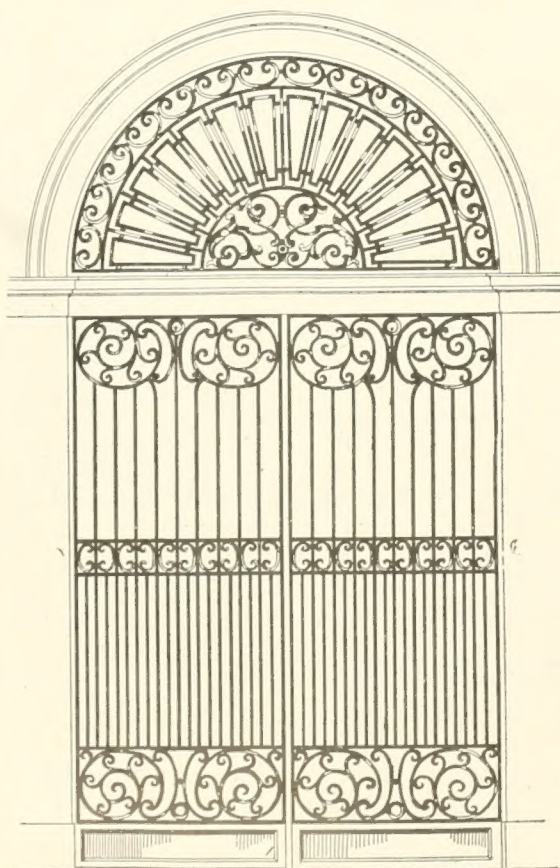
SPIRAL or STRAIGHT STAIRS

Some of our Installations—

North Wing of Ontario Parliament Buildings
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Send us your Specifications

The GEO. B. MEADOWS, Toronto
Wire, Iron and Brass Works Co., Limited
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Ornamental Iron Work

We are specialists, and can give you high-class work at reasonable prices. Let us quote on your requirements

Stairways—in Wrought and Cast Iron
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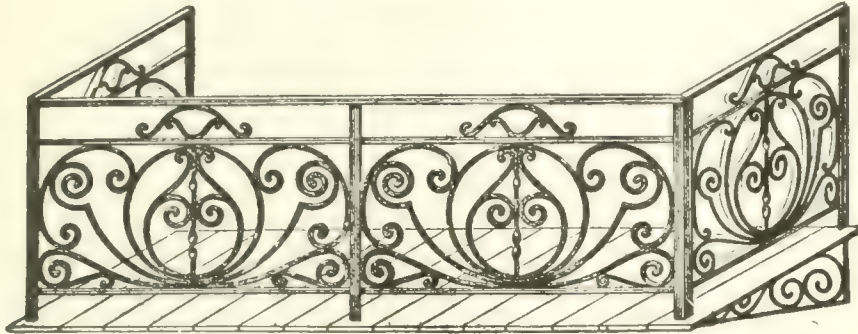
Dominion Ornamental Iron Co.
LIMITED

1195 Queen St. E., Toronto

Winnipeg Wire & Iron Works

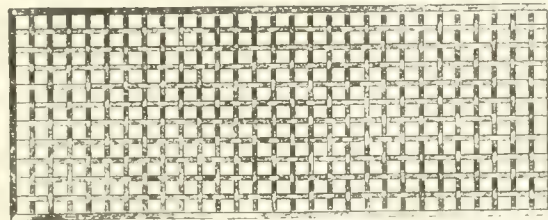
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Ornamental or Plain Balconies

Ornamental and Architectural Wire and Iron Work



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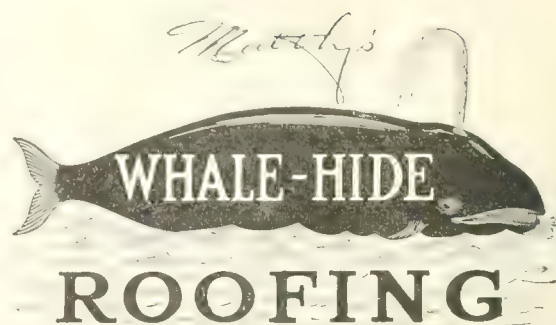
Winnipeg Wire & Iron Works

WINNIPEG

Telephone—Sherbrooke 4010

Real Economy in Roofing

That's what
Maltby's Whale-Hide Roofing
Spells



Whale-Hide Roofing has positively no **superiors**. It is much cheaper than its **equals**; but does cost a little more than its **inferiors**

Mr. Builder: Do not commit the protection of your property to the uncertainty of a cheap roofing, which has nothing to recommend it but its low price.

If you believe in the common sense idea that what a man gets is as important as what he pays, we ask you to send for sample of **Whale-Hide** and investigate its quality.

Dominion Roofing Manufacturing Co., Limited

Factory:
New Toronto

Head Office:
TORONTO

Branch Warehouses:
Montreal and Winnipeg

Asbestos Corrugated Sheathing



Protects Interiors from Extreme Heat

The high temperature which a summer sun develops behind walls and roofs of corrugated iron, can be avoided by the use of Asbestos Corrugated Sheathing.

This Sheathing does not heat up like metal on the exposed surface, and the insulating properties of the Asbestos prevent the heat from working through to any extent and radiating into the building.

In the winter these same insulating properties

greatly lessen the amount of heat which escapes through walls and roof.

Whether the building is to be used to accommodate workmen or to store goods, this protection from extremes of temperature is most important.

Moreover, Asbestos Corrugated Sheathing is absolutely fireproof, never requires painting, and is practically everlasting.

Write for Booklet, which gives particulars and prices.

Asbestos Manufacturing Co., Limited

Address E. T. Bank Bldg., Montreal.

Factory at Lachine, P.Q. (near Montreal)

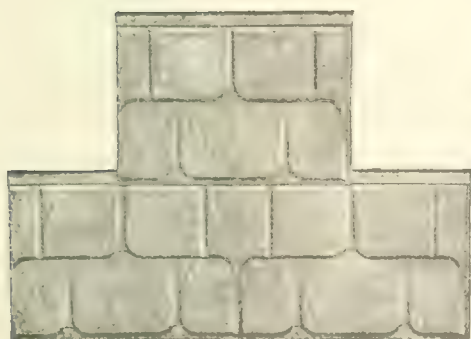


Building covered with Acorn Steel Siding and roofed with Safe Lock Shingles

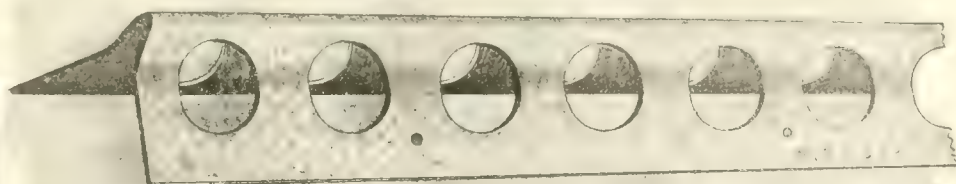
Carpenters and Builders, Attention!

WE now carry a full line of Metal Roofings, Sidings, Ceilings, Plasterers' Corner Bead, Wall Ties, Wall Plugs and all Sheet Metal Goods in stock for immediate delivery to any point.

Get in touch with us at once and ask to see a sample of our new "Ideal Acorn Ornamental Ridge"



Safe Lock Shingles



Plasterers' Corner Bead

The A. B. Ormsby Co., Limited

Head Office: Toronto, Ontario

Associated with THE METAL SHINGLE & SIDING CO., Limited

Address nearest branch

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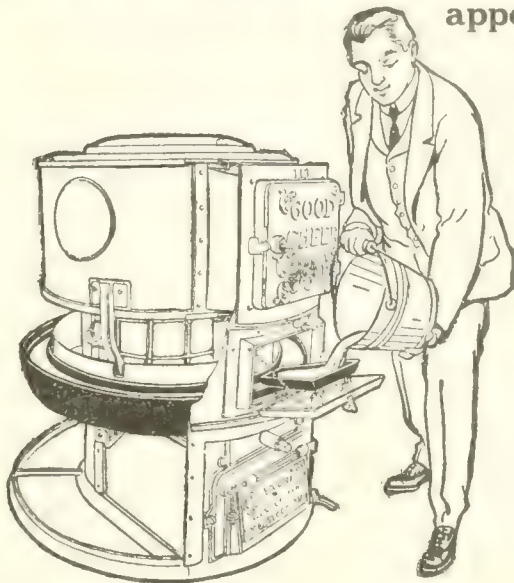
SASKATOON
Saskatchewan

CALGARY
Alberta

EDMONTON
Alberta

A Comfortably Heated House

appeals to everyone



In our climate, househeating is not a luxury, but a necessity, and so long as you let your heating contracts to the lowest bidder, and without due consideration of the importance of adequate heating provision, so long do you leave your reputation as a house-builder open to criticism. The slight difference in cost of

A "GOOD CHEER" CIRCLE WATER PAN WARM AIR FURNACE

over that of the average heater is a mere bagatelle compared to the enhanced value it gives to the house.

Let us send you our attractive Catalogue, which gives interesting information about the "Good Cheer" system of Heating. Free to Readers of this Paper.

THE JAMES STEWART MFG. CO., LIMITED

Woodstock, Ont. :: Winnipeg, Man.

Why Zig-Zag Heat Tubes

A battery of heavy corrugated iron heat tubes surround the fire grate in a Kelsey Generator.

Fresh air from the under draft passes through these tubes to the warm air pipes that distribute it throughout the building.

These heat tubes are made Zig-Zag to increase their radiating surface. The air turns and twists up through them, getting the full benefit of the heat.

Each of these Zig-Zag tubes weighs about 70 lbs. and there are from 8 to 16 of these tubes in each Kelsey Generator.

Once this heavy mass of iron becomes heated it remains hot for hours and hours, circulating a constant supply of warm air throughout the building.

Think of the economy this means! As a matter of fact, a Kelsey Generator consumes from 20 to 30% less fuel than the ordinary furnace.

Full information about the Kelsey Generator will be sent you on request. Write for it.

The James Smart Mfg. Co., Ltd.

Brockville, Ont.

1c

Winnipeg, Man.



"Daddy of Them All"

35,000 Builders and Contractors
say so, and are using our

"Little Giant" Floor Scrapers

Why not you? They never fail. Absolutely guaranteed. Write us to day for further information. No Experiment.

A machine sent to you FREE.

No expense or obligation attached.



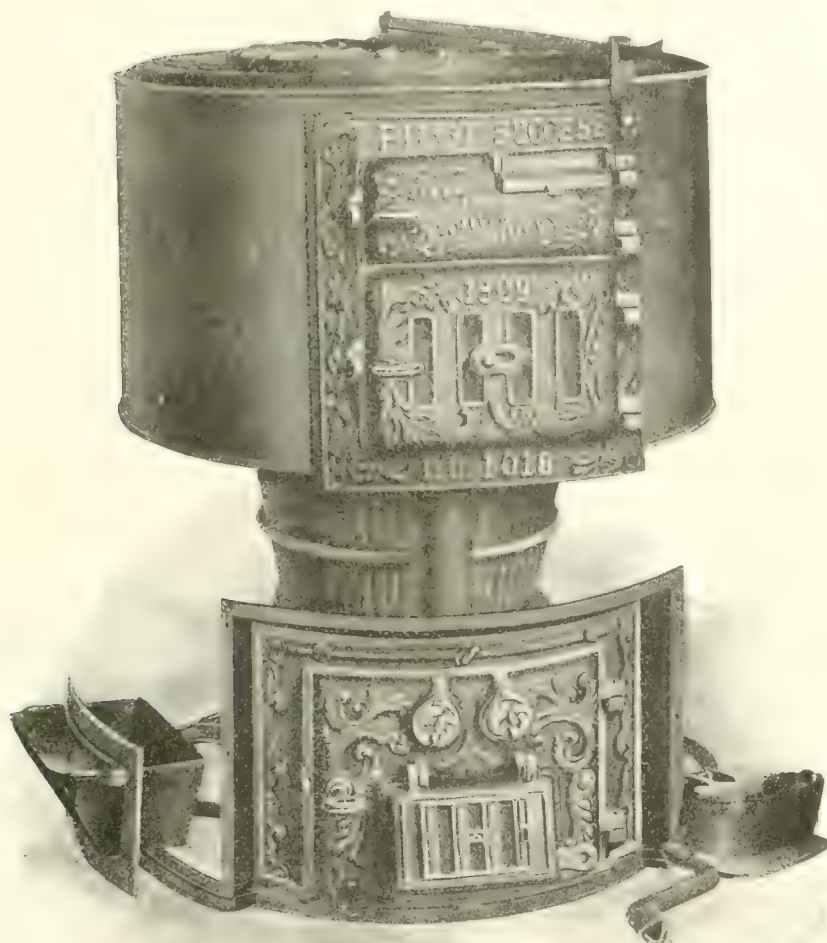
HURLEY MACHINE CO.,

Limited

Atlantic Ave.,

::

Toronto



Pilot Success Furnace

Mr. Builder, before placing your contract for heating, get full particulars about the **“Pilot Success Furnace”** Its great fuel saving qualities, testimonials of satisfied users, etc.

Write us at once ! To-day !

THE HALL ZRYD FOUNDRY CO., LIMITED

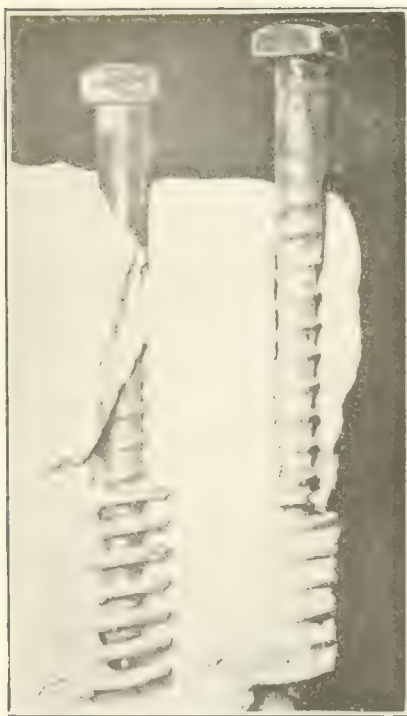
WINNIPEG BRANCH
288 Princess St., Winnipeg, Man.

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WESTERN AGENCIES
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TORONTO REPRESENTATIVE: H. H. Jonston, 415 Manning Chambers, Phone M. 5490

W. E. Sault, Edmonton, Alta.



THE Richmond Screw Anchor

is an indestructible metal bearing which makes possible the use of screws in cement and similar material.

Positively will not shake out, rust out or loosen.

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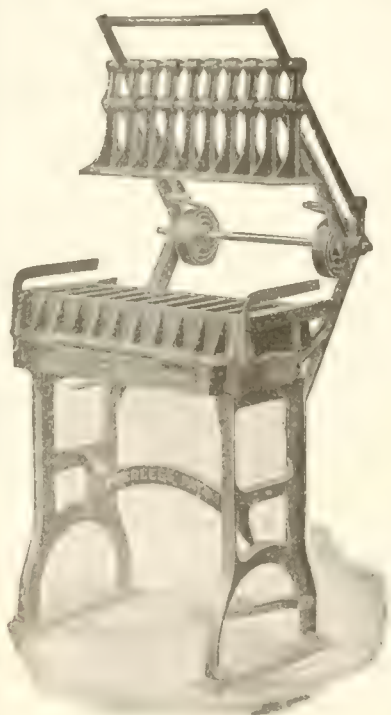
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6 ft.	2.15	2.30	2.75	3.50	4.50
8 ft.	—	—	3.10	4.00	5.25
9 ft.	—	—	3.50	4.50	5.75
10 ft.	—	—	3.75	5.00	6.00

Design B.L. No. 2

Lh.	Dia.	6"	8"	10"	12"
4 ft.	\$1.60	1.80	2.30	3.05	3.75
5 ft.	1.85	2.00	2.55	3.30	4.25
6 ft.	2.10	2.20	2.75	3.55	4.50
8 ft.	—	—	3.25	4.05	5.30
9 ft.	—	—	3.75	4.55	5.75
10 ft.	—	—	4.00	5.05	6.00

Design B.L. No. 3

Lh.	Dia.	6"	8"	10"	12"
4 ft.	\$2.10	2.20	3.00	4.70	6.75
5 ft.	2.40	2.55	3.20	5.00	7.30
6 ft.	2.70	2.80	3.35	5.80	7.90
8 ft.	—	—	4.10	6.70	8.70
9 ft.	—	—	4.50	7.25	9.50
10 ft.	—	—	4.80	7.60	10.05

Design B.L. No. 4

Lh.	Dia.	6"	8"	10"	12"
4 ft.	\$2.60	2.80	3.70	4.75	8.00
5 ft.	2.85	3.10	3.85	5.00	8.50
6 ft.	3.10	3.30	4.05	5.15	8.75
8 ft.	—	—	4.55	5.95	9.75
9 ft.	—	—	4.95	6.50	10.50
10 ft.	—	—	5.20	6.75	11.00

Design B.L. No. 6

Lh.	Dia.	10"	12"	14"
6 ft.	\$6.80	8.85	10.90	11.95
8 ft.	8.70	9.95	11.95	12.90
9 ft.	9.25	10.75	12.90	13.55
10 ft.	9.60	11.30	13.55	—

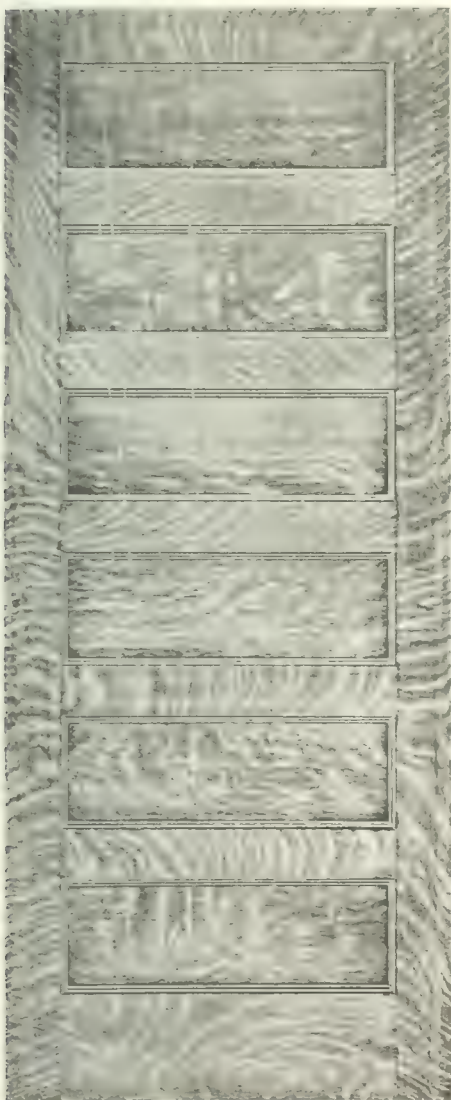
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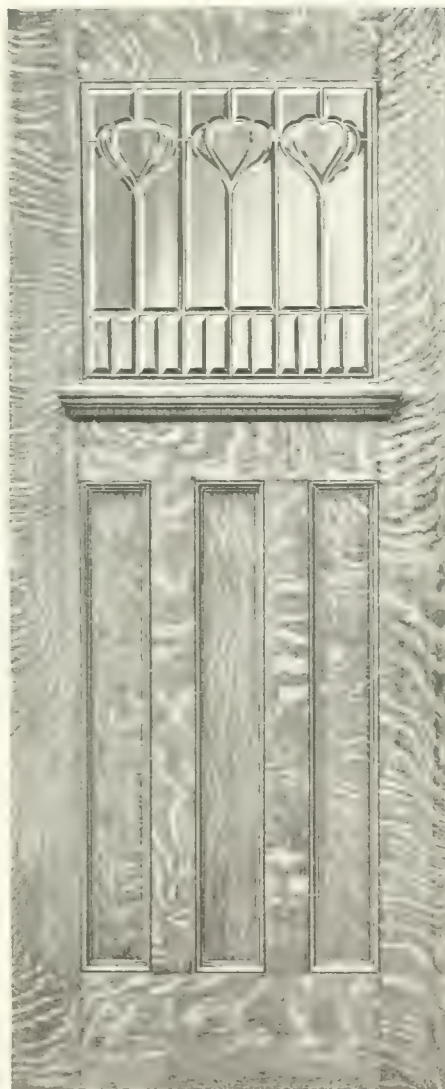
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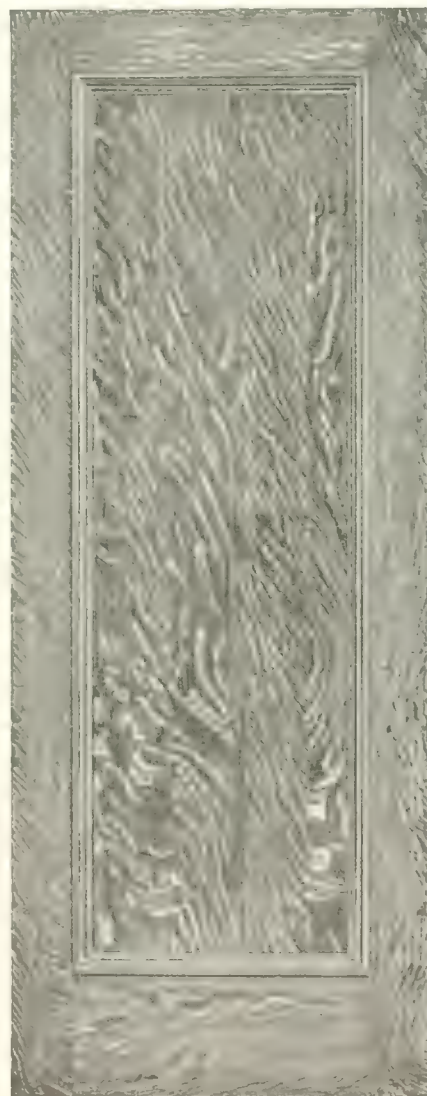
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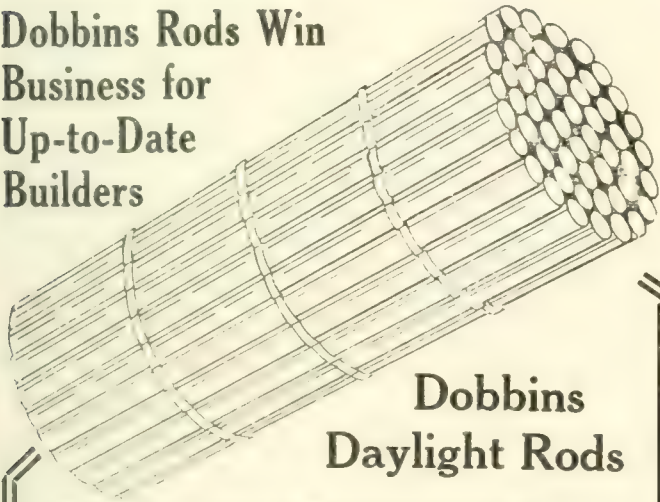
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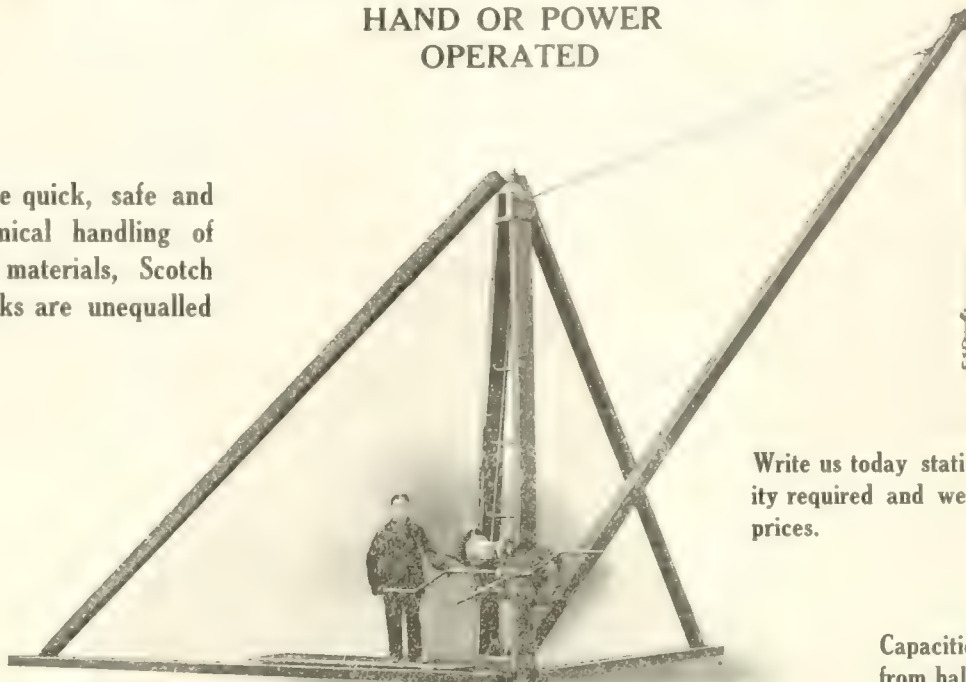
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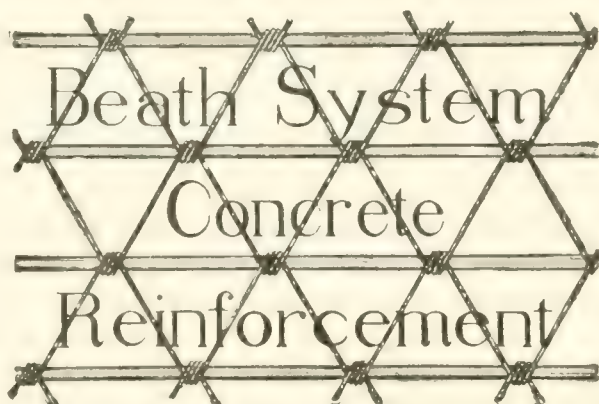


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Living room of residence of Hugh F. Osler, Winnipeg.

Artistic House of Combination Brick and Concrete Block Construction

Architect - Herbert B. Rugh
Of Ross & McDonald, Winnipeg.

Built for - Hugh F. Osler

THE residence of Mr. Hugh F. Osler, Winnipeg, designed by Mr. Herbert B. Rugh, of Ross & McDonald, Winnipeg, is of particular interest from a builder's standpoint. The construction is somewhat unusual, but the effect is very satisfactory.

The walls are built of concrete blocks, veneered with copper color, vitrified brick for the lower portion, and coated with cement plaster above. By adopting this combination and the employment of simple lines, the designer has contrived to obtain both a substantial wall system and a most attractive exterior scheme. The brickwork is laid up with $1\frac{1}{4}$ inches wide raked mortar joints, and the woodwork, with the exception of the window sashes which are painted white, is finished in brown.

Added interest to the design is given by the 10 x 40 ft. terrace across the front, with its low brick walls, stone coping, and simple fashioned urns, while a pleasing feature is the modest balcony over the entrance which is sheltered by the overhang of the central roof, and beautifully balanced by end gables and the arrangement of the windows.

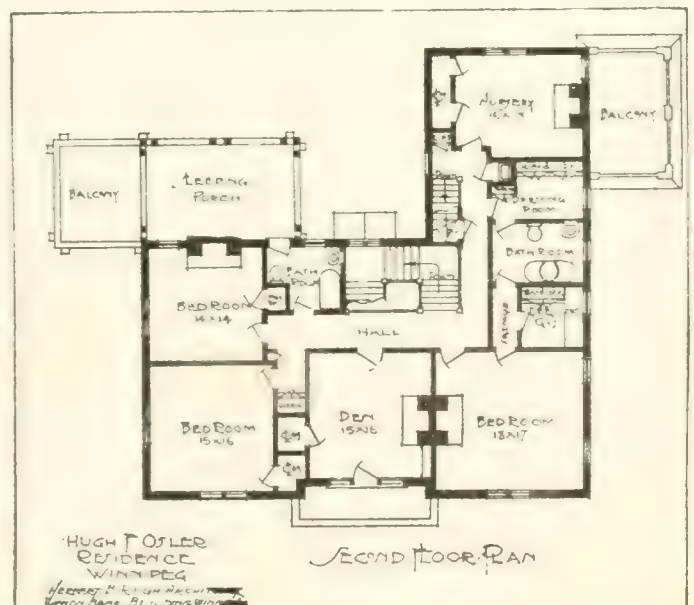
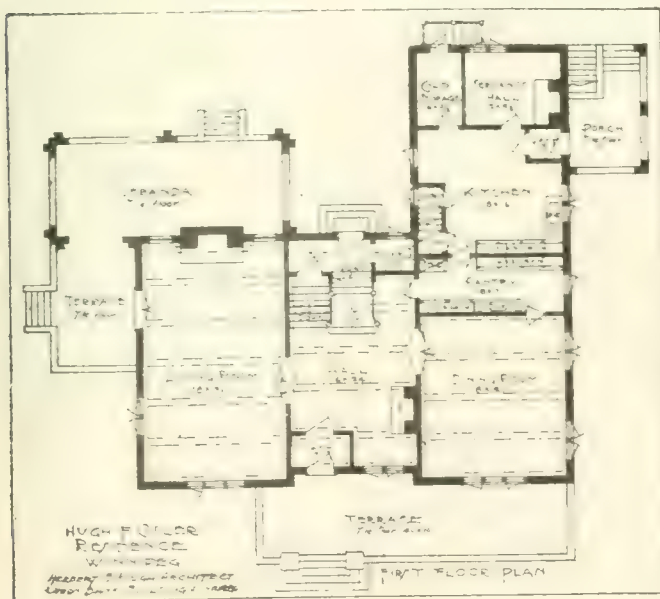
Interior Arrangement and Finish

The reception hall is 16 x 24 ft. with a vestibule,

clothes closet and fireplace. It gives one the impression of being large and "roomy." The beamed ceilings, dadoed walls and arrangement of fireplace and stairway may be seen in the illustrations of the reception hall. The woodwork in this room is one of the distinctive features of the house, and is a species known as Japanese Sugi. It is a beautifully grained wood, finished in a rich brown to harmonize with the copper walls and ceiling which are stippled in a rusty brown.

The dining room which is 18 x 21 ft., and the living room which is 18 x 31 ft., also have beamed ceilings. The living room, which takes up the entire space to the left of the hall entrance, opens into a very large rear terrace with tile floor extending along the back and half way along the side of the living room. Besides the hall fireplace there are also fireplaces in the living room, servants' hall, den, nursery and two of the bedrooms.

The kitchen is 18 x 16 ft., well supplied with cupboards. Entrance to the dining room from the kitchen, is through a pantry 18 x 7 ft., and through it is also a direct entrance to the hall. At the rear of the kitchen is the cold storage 6 x 9½ ft., and the servants'



Floor plans of Hugh F. Osler's residence, Winnipeg.

hall 12 x 9½ ft., which has a fire place. The kitchen opens up through a vestibule to a porch with tile floor.

As will be seen on the second floor plan there are three bedrooms, 14 x 14 ft., 15 x 16 ft., and 18 x 17 ft., with a central den 15 x 16 ft., and a nursery 16 x 13 ft. The nursery opens on to a balcony, while at the rear of the other wing is a sleeping porch and balcony.

Winnipeg's New Building By-Law

The city of Winnipeg has drafted a new building by-law, which is now being printed in book form. This book, when complete, will cover all that is required in the erection of a building except regulations concerning the interior fittings connected with electric wiring, plumbing, etc., and an effort is being made to have these regulations compiled and placed within the same covers, so that builders, architects, and all interested in the by-law will be able to post themselves without loss of time on the complete by-laws respecting buildings.

The duties of the building inspector and his staff are clearly defined, and then follows a definition of the various terms which are used in the construction of the by-law. Buildings are divided into six classes as follows:

First class buildings—All buildings of fireproof construction.

Second class—All buildings of which the external or party walls are of brick, stone or equally substantial and incombustible material.

Third class—All buildings having the external or party walls constructed of similar material to second class buildings up to the first floor, but constructed of framework in whole or in part, or having more wood on the exterior walls above the first floor than is required for the door and window frames, doors, sashes, shutters, and verandahs, notwithstanding that this wood is wholly covered with slate, tile, plaster or other incombustible material.

Fourth class—Frame structures, the exterior walls of which are veneered with brick, stone work or lathed, plastered and roughest or finished stucco.

Fifth class—Frame structures, covered with galvanized iron, corrugated or otherwise, or metallic siding.

Sixth class—Frame structures when the enclosing and exterior partition walls are constructed entirely of wood and plaster, etc.

Buildings exceeding seventy feet in height, with the exception of churches and grain elevators, must be built of fireproof construction, and where a church has a seating capacity of 1,200 or more the building must be fireproof construction up to and including the main auditorium floor.

No building must exceed 120 feet unless furnished with auxiliary pumps and other special fire extinguishing appliances which have been approved by the building inspector. No frame building must exceed thirty-five feet in height. Brick veneer is not allowed for more than two storeys and the height from the ground to the plate must not be more than twenty-five feet, while no gable may be more than ten feet in height.



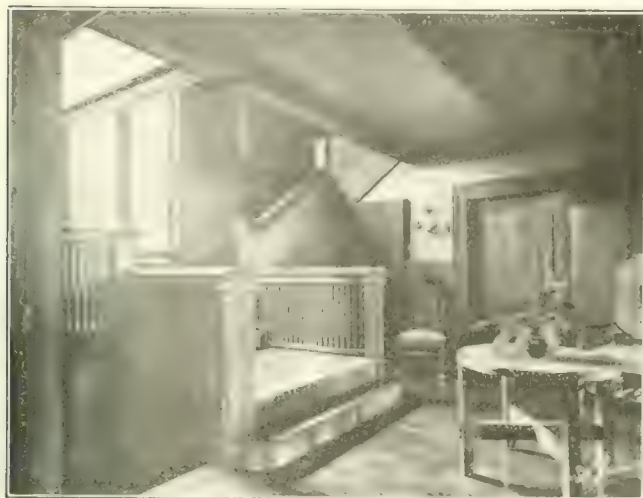
Residence of Hugh F. Osler, Winnipeg.

Every fourth course of brick must be nailed to the studding every two feet with five inch nails.

Another clause regulating height says: "No building shall have a greater height in proportion to the least dimensions of its base than set forth in the following table: For buildings with skeleton frame, five times; mill construction, three times; ordinary construction,

must be an open space left at the rear of the lot. The courts must be open and unobstructed with the exception of fire escapes, which must not project more than four feet into such courts. The court space is exclusive of balconies or porches. Inner courts must have the following dimensions:

Storeys	Least Width	Area, sq. feet.
2	10	98
3	10	200
4	13	338
5	16	512
6	16	722
7	22	968
8	25	1250
9	28	1568
10	31	1922



Hall in residence of Hugh F. Osler.

two and one-half times. This also applies to wings of buildings whose length exceeds two and one-half times their width, provided no building shall exceed the minimum height established by its respective class."

No house will be allowed to front on a street or lane less than thirty feet in width, while every house or terrace must have at least twenty per cent. of the lot clear of obstruction from the ground to the sky.

The regulations all through the by-law are extremely explicit and care has been taken to prevent the possibility of misconstruction. Materials are carefully defined, tables showing the various required thicknesses of walls for different classes of building and different classes of material. Stringent regulations have been imposed on the erection of theatres and public buildings that the safety of the public may be properly safeguarded, and tenement houses have also been the subject of careful legislation.

Tenement houses must not occupy more than eighty-five per cent. of the area of a corner lot or more than ninety per cent. if the lot is bounded on three sides by streets or lanes, or seventy-five per cent. of the area of any other lot. Where a tenement house is used partly for business purposes, the ground floor may cover the entire lot if the whole floor is to be used for business purposes; the upper portion of the building must, however, conform to the general regulations. Exceeding three storeys in height a tenement house must be of fireproof construction. No wooden tenements will be allowed to exceed two storeys in height, nor a wooden tenement wider than thirty feet and deeper than sixty feet unless the interior is divided by fire-proof walls. No tenement house may be erected which exceeds in height one and one-half width of the widest street upon which it stands, such height being the perpendicular distance from the street grade to the highest point of the roof beams.

Scuttles in the roof must be fireproof with stairs or a fixed ladder leading thereto and without a lock, although it is permissible for the scuttle to be fastened on the inside with a bolt. In every case where the rear of a tenement house does not abut on a lane, there

With the exception of tenements of fireproof construction, no area of more than 2,000 square feet will be allowed unless divided by interior division walls of fireproof construction extending from the basement floor to the roof. In non-fireproof tenement houses covering an area of not more than 5,000 square feet, where the first floor is used for business purposes, the fireproof division walls may be omitted provided that the floor already directly above the business premises and the stairway leading thereto must be constructed of fireproof materials. The minimum size of rooms is given. There must be at least one room containing 120 square feet and every other room must contain at least seventy square feet of floor area. The by-law covers living rooms in the basement, lighting and ventilation arrangements for such rooms, storm sash, of which a part can be opened to admit fresh air, proper lighting of public halls, the stairs and landings.

Bill to Encourage Housing Schemes

With the object of affording some relief to the housing situation in cities, Hon. W. J. Hanna introduced into the Legislature a bill to "encourage housing accommodation in cities and towns." The bill provides



Another view of hall in Mr. Osler's residence.

that the Municipal Council may guarantee the bonds of any bona fide housing company to the extent of 85 per cent. of the capital required, on the vote of the ratepayers, if the Municipal Council is satisfied the additional housing accommodation is required for those living or working in the municipality.

The Building Situation in Western Canada as Seen at Close Range :

By
Gordon C. Keith
Calgary, April 30, 1913

SPRING building operations have opened up in Western Canada and the prospects at present are that the record made last year in the building field will be equalled, if not surpassed. In almost every centre of any importance, large business blocks are going up, some having the steel work all ready for bricking-in and many others at the stage of having the ground cleared ready to start the foundations. In fact, the features of the situation are the number of these buildings and the large number of dwellings being erected this year.

People Flocking Into the Country

One thing that is influencing the building trade is the number of people coming into the country at the present time. I called on the Commissioner of Immigration at Winnipeg, Mr. J. Bruce Walker, and obtained from him the figures for the year ending March 31, 1913. During that time, 400,831 people came to Canada to take up their residence here. Of these there were 140,143 from the United States, and if the same ratio obtains in the calendar twelve months of 1913 there will be 150,000 people enter Canada from the United States and take up their residence this year.

Immigration into Winnipeg at the present time is at the rate of 1,000 per day. For the week ending April 12 there were 3,676 from Great Britain, 2,212 from the United States, 340 from Russia, 150 Galicians, 58 Germans and 209 Italians, making a total of 6,645 for the week, or at the rate of about 1,000 per day. This does not take into consideration those entering Canada at any other ports.

Building Permits Compared

The building permits for Western Canada for the first three months of 1913, as judged from the returns of 21 cities is less than the same period last year. Those for January, February and March, 1913, were \$13,129,327, as compared with \$14,259,212 in the first three months of last year. Of course, this cannot be taken as a criterion of the condition of the building trade for this reason, that there are new towns being continually opened in the West, and there is no way of getting the number or value of the buildings being erected in these new centres. For instance, at Transeona, where the N.T.R. shops have been erected, and near the new C.P.R. shops at Calgary, whole towns are being erected, and there are scores of places through the West that were not even on the Western map last year.

I have covered almost every centre of importance between Winnipeg on the east to Calgary and Edmonton on the west, and it struck me that there were a great many more medium sized houses being erected than there were last year. I have no statistics to prove this, but judge merely from observation, having covered this territory about a year ago.

Western Resources Being Opened Up

By far the majority of western houses are of frame construction, many being shingled. Lately there has been a development of the clay industry, and the pros-

pects are that a larger percentage of brick houses will be erected in future. New cement plants have been erected in the West, but there still appears to be a greater demand than it is possible to fill with the present plants. The cement plants in operation in Western Canada are located at Babcock, Man.; Winnipeg, Man.; Calgary, Exshaw, Blairmore, and one west of Edmonton, Alta.; and Todd Inlet, B.C.

The valuable resources of building materials are being gradually opened up. There are very few stone quarries east of British Columbia, but good building stone is found at Calgary, and high-grade sandstone quarries are being opened up near Edmonton. The deposits near Edmonton are on the Pembina River, about 65 miles east. Tests have been made by Prof. Allen at the University of Alberta, and also at McGill University, at Montreal, and these show the stone to be of good quality. The colors of the stone are buff and grey. It is stated that the clay at this quarry is of good quality for the manufacture of pressed brick, and that this industry will be developed in the near future. The quarries are reached from Edmonton by both the C.N.R. and the G.T.P.

Town-Planning is Popular

Great interest has been manifested in the western towns and cities in "town-planning," with a view to planning the cities for their future growth and development. There is a movement on foot to have a uniform building law in all the western towns for the furtherance of the "town-planning" movement. The idea includes the construction of fireproof sanitary buildings. These uniform laws, being prepared by men of experience, are of especial value to the proper development and planning of the newer centres. The point is made that the standardization of the building trade has, to a certain extent, had a beginning in the standardizing of electric wiring. One of the strongest advocates of a uniform law is Mr. H. A. Sylvester, Superintendent of Buildings, Calgary, who has given considerable thought to this matter. He has expressed the hope that there may be established a uniform building code, uniform and effective from coast to coast.

The Monetary Situation

This short review would not be complete without a reference to the "tight money" cry. From conversation with builders throughout the West it appears that the banks have taken this time to stop "wild-cattling." In holding up currency, the banks have affected building to a certain extent, but builders will benefit in the end. At the present time they are able to secure money for legitimate business. The idea of the banks is evidently to stop the large investments in real estate that tie up money and necessitate the banks carrying on the various business interests. Whether this commendable attempt at a cure for this will be permanent or not remains to be seen. It appears to the writer that the best way to stop private capital being used for real estate deals and the carrying on of business with borrowed money, is government legislation by which plans of property to be placed on the market for sale must be

approved by a commission. This would, no doubt, prevent "wild-catting" to a large extent.

Western Opportunities for Builders

There are lots of opportunities for builders in Western Canada. It isn't an easy matter to find house room for the thousands of people that are pouring into the West. Houses are rented or sold before the foundations are complete and apartment houses cannot begin to supply the demand for apartments. In some cases there are a few houses vacant where the builder is waiting for a purchaser, but this condition is by no means common. In the various cities there appears to be a steady stream of house and flat hunters, and the majority of them are being turned away. It is quite common to see large numbers of tents on the outskirts, where newcomers have purchased a little outside lot and are waiting for the time to build a little shack. The following statement of a Winnipeg builder is quite common in the West: "I expect to build quite a number of houses in Winnipeg this summer. The demand for houses is particularly good. Every day I have from one to two dozen calls for houses to rent and I haven't one at the present time on the renting list. They are snapped up as quickly as vacated."

Exhibition of Domestic Arts, Calgary

Editorial Correspondence

The writer had the privilege of having a private view of one of the most interesting exhibitions of house plans, photographs, etc., that has been held in the West for some time. It was given by E. Stanley Mitton & Co., who maintain an office at 25 McDougall Block, Calgary. The exhibition was held in the Mason & Risch Building, and gave many ideas on the artistic and economical planning and arrangement of the ideal modern home and laying out of the garden.

There were shown a large collection of working plans of homes of every style and size, with details relating to the interior and exterior arrangement for conven-

ience, comfort and beauty; photographs and sketches of homes, rich stained glass windows, stencil friezes for rooms, electroliers and electric fittings; window curtains, the proper draperies for every kind of window, correct color schemes and suggestions for furnishing a home. Household hardware also was shown, there being an excellent display of door handles, knockers, strap hinges, etc.

Entrance was by invitation. Each evening there was a musical recital by two concert pianists from New York. The exhibition was well attended, and builders showed much interest in it. Some time ago this exhibition was shown at Vancouver, and it is the intention to hold it in Edmonton at an early date. The exhibition was in charge of Mr. W. F. Harrison.

The example of E. Stanley Mitton & Co., if followed by others, would do a great deal towards the erection of a more artistic class of dwellings and would show builders generally the possibilities in the way of artistic and economical home planning.

The Use of Columns in Construction

Columns are being wisely used in Winnipeg both in private and public buildings. One has only to walk along Main St., Winnipeg, in the vicinity of Portage Ave. a short distance to see a wide and varied use of columns, giving a very artistic effect. In fact columns appear to be the rule.

Fig. 1 shows the Bank of Montreal building recently completed. The columns in this case are of Doric design. In Fig. 2 is shown the Canadian Bank of Commerce Bldg. with Corinthian columns, while Fig. 3 shows the Ionic columns of the postoffice.

Opened Toronto Office

The Crown Gypsum Co., Limited, Lythmore, Ont., have opened sales offices at 43 Victoria St., Toronto, to which place all correspondence should be addressed.

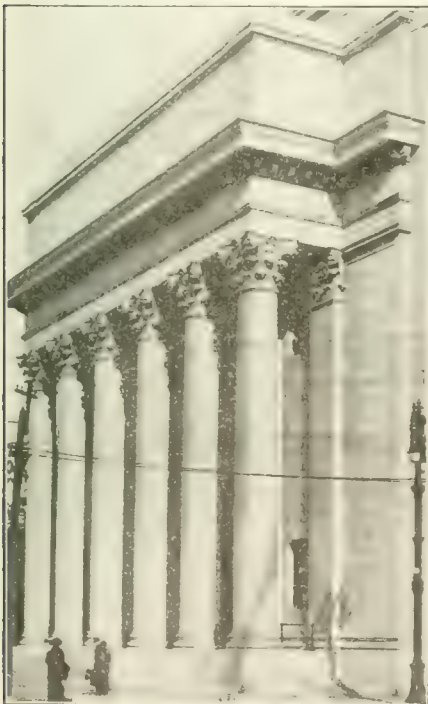


Fig. 1. Doric columns, Bank of Montreal, Winnipeg.

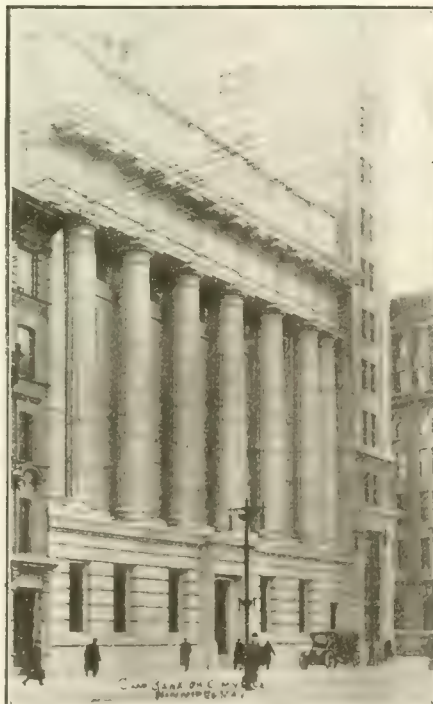


Fig. 2.—Corinthian columns, Bank of Commerce, Winnipeg.



Fig. 3.—Ionic columns, Post Office, Winnipeg.



Living room in J. Y. Reid's house, Winnipeg.

Winnipeg Home That is a Good Example of Colonial Design

Architect:

HERBERT B. RUGH, of Ross & McDonald, Winnipeg

THE residence illustrated in this article is of concrete construction, the entire building being built of hollow concrete stone, tooled face having the same color and texture as stone, the materials consisting of white Portland cement, ground stone, white sand and marble dust.

It is a good example of modern colonial, both in layout and exterior. The hall extends through the house from front to rear with large living-room, 25 ft. by 16 ft., and library, 16 ft. by 14 ft., on the left hand side, both having fireplaces, and the dining-room, 20 ft. by 16 ft., and kitchen, 16 ft. by 14 ft. with pantries on the right.

The living-room has beamed ceiling, and is finished in mahogany, the library in brown British Columbia fir, dining-room and hall in combination white enamel and mahogany, as are all the bedrooms. All the doors in bedrooms are mahogany with white trim.

One of the features of the house is the billiard room and card room, which occupy a large portion of the basement. The billiard room is 43 x 19 ft., and has a fireplace. In the basement also are laundry, cistern, vegetable and fruit compartments, boiler room and lavatory.

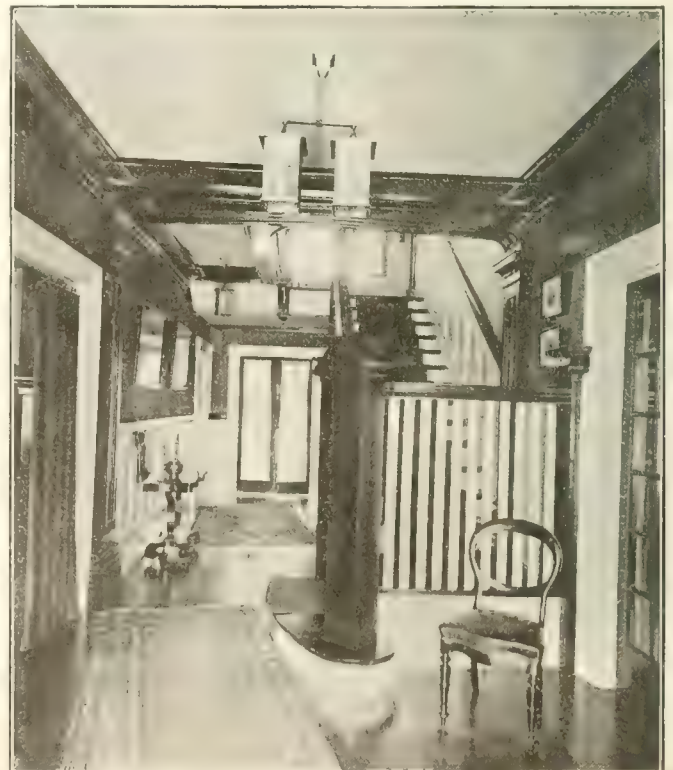
The second floor consists of bedroom, 16 x 14 ft.; bedroom, 17 x 14 ft.; bedroom, 12 ft. 6 in. x 10 ft.; bedroom, 20 x 16 ft.; dressing-room, 10 x 8 ft.; playroom, 16 x 15 ft.; two bathrooms, closets, halls, etc. In the attic are storage room, hall, bathroom and three bedrooms, as follows: 18 x 13 ft., 13 x 10 ft. and 12 x 9 ft.

The house is built on a river lot with beautiful outlook from the screened verandah on the first floor or the screened balcony above.

examples of fireproof construction now under way, after designs of architects who understand how to keep costs down.

At the Chicago cement show held last January, one of the most interesting exhibits was that showing a typical suburban home in full size and built entirely of fireproof materials. It was a true concrete house, concrete hollow tile having been used for wall and floor material, and a stucco coat having been applied for the finished surface.

It is commonly believed that a coating of stucco on a good frame renders a house fireproof. This is not the case. The thin protecting shell is no protection from fire within and its life is limited. But true fireproof construction with approved materials gives perfect security. Stucco on such a foundation is ideal.



Hall in residence of J. Y. Reid, Winnipeg.

Building More Fireproof Homes

By P. D. Van Vliet, in B.C. "Saturday Sunset"

Is it not time that the fireproof house receive greater consideration on the part of architects and owners? It so happens that a fireproof house is also one practically free from deterioration. There are no rotting timbers, and coal bills are generally lower than with cheap, inflammable construction.

But it is generally thought that fireproofing entails great expense, that any of the accepted safe materials are beyond the purse of the average home builder. That this is not the case is being proven by numberless

As a matter of fact the house at the cement show was necessarily built only in part. The depth of the booth being 14 feet, the porch, porch roof and the front wall of the house, including a bay with casement windows off the living room, a casement window off the hall and the entrance were all that could be actually constructed. The balance was painted on canvas by one of Chicago's theatrical scene painters and gave in perspective, not only the house, but a typical suburban setting.

The roof of the home is an important feature that is seldom given sufficient consideration. Where houses are built close together the danger of fire being communicated from house to house is very great, where wood shingles are used. There is perhaps nothing cheaper nor better than the wood shingle, if we disregard entirely the danger from fire, and yet this danger is so real to-day with our crowded city conditions that the makers of fireproof shingles, of cement-asbestos or tiles of clay or cement, are finding a ready market.

In order to carry out in every detail the purpose of the house a fireproof roof of asbestos shingles was used, and while its cost was found to be practically double that of wood shingles, yet this additional cost must be reckoned as a pure investment, there being no depreciation and the greater safety in bringing a real reduction in the annual fire insurance costs.

The home owner should look well to the materials specified by his architect and used by his contractor when building his house. He should be sure that the walls are well insulated and preferably that they have a double air space, for this means a considerable saving in coal and a more comfortable house through the hot summer.

To Report Faulty Wiring

Under the new rules and regulations for inside electrical installations to be issued by the Hydro-Electric Power Commission, Municipal Inspectors will be delegated to report to the commission all cases coming

under their notice of faulty wiring and installation, and the owners of the installations, should they not accept the ruling of the Inspectors, will have the right of appeal to the Hydro-Electric Commission, whose decision will be final.

It is understood that the regulations will not be applied in an arbitrary manner in the case of old buildings unless dangerous faults are found to exist, but in the general interests they will be rigidly enforced throughout the province in the case of all new installations.

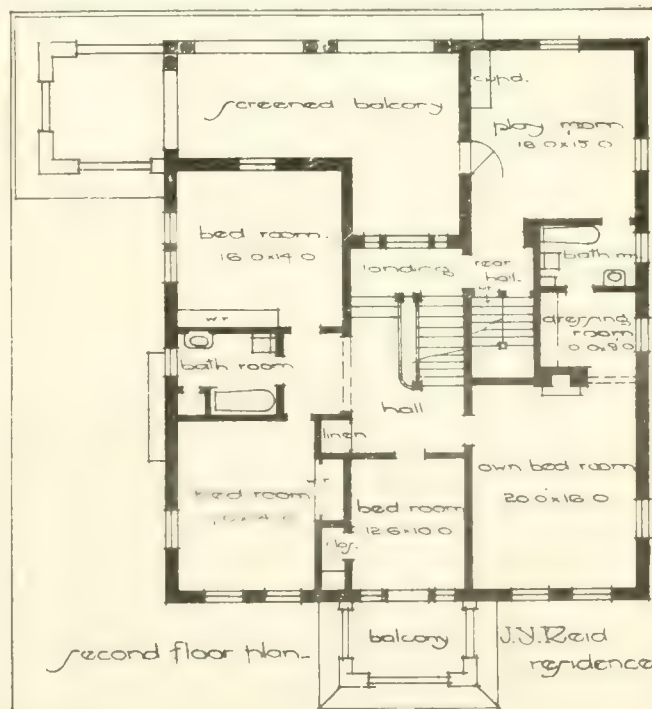
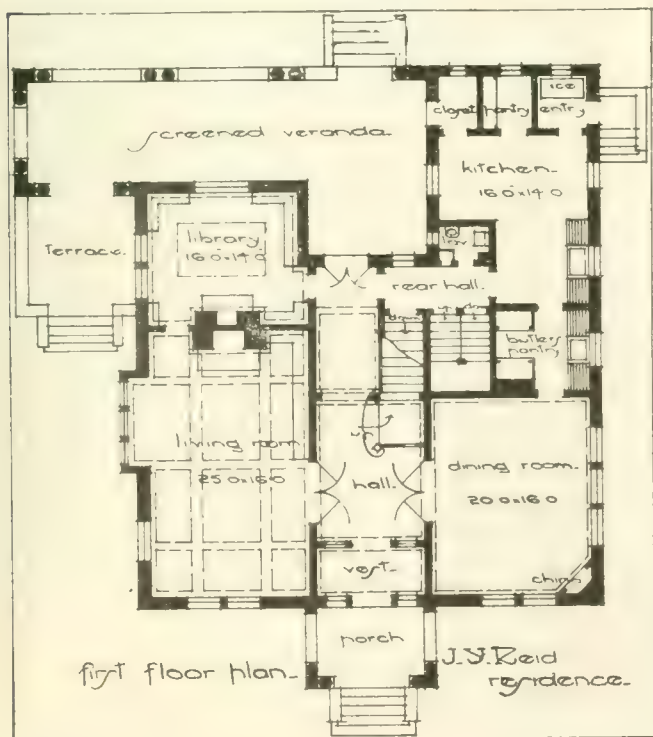
Apartment Houses Rob Patrons of Air

It is a deplorable fact that owners and builders of apartment houses are utilizing space in some cases without due regard to sufficient light and ventilation in rooms to be occupied by human beings. Many of these rooms are absolutely unfit for other than storage purposes. Others again have borrowed light from halls, rooms and airshafts covered with skylights, and not a ray of sunshine at any time of the day, no direct communication with outside air, and very imperfect ventilation.

"Lavatories are placed against inside walls in dark corners, no light or connection with outside air, some with windows opening into kitchens, dining-rooms or airshafts, opposite bedrooms. The only redeeming feature about the lavatories is that they were found very clean."

The above is a portion of a report prepared by Dr. Hastings Toronto, Medical Officer of Health, for presentation to the local Board. Dr. Hastings advises the appointment of an inspector, whose duty would be to inspect the plans of all apartment houses about to be erected, as to proper lighting and ventilation.

Alderman Halleron of Regina, has suggested that the city lease land to persons who desire to erect their own homes, and give them 10 years in which to pay for the property, at market value.



Floor plans of J. Y. Reid's residence.

The Use of Hollow Tile in the Construction of Houses : : :

By
Eric A. Forson

UP until a few years ago, it was thought that it was advisable to use hollow tile only in the fire proofing of large buildings. To-day, however, it is being used to a great extent in the erection of houses, as is shown in the accompanying illustrations of houses in course of construction in Toronto and vicinity.

The reason for this is that architects and builders are realizing that well-burned clay cannot be destroyed by fire, and that a dead air space is the best insulation against heat or cold, and, consequently, the best protection against the extreme ranges of temperature experienced in the northern climates.

In the construction of hollow-tile houses, it is usual to have the walls coated with cement stucco or veneered with brick or stone. The hollow tile has a special dove-tailed scoring, into which the stucco keys itself, eliminating any tendency of the stucco to break away from the tile. Interior plaster is applied direct to these walls, no strapping or lathing being necessary.

Not only is this material being used for smaller residences, but for apartment houses, hotels, factories, garages, schools, stores, farm and other buildings which formerly were constructed of frame, brick or concrete, are now being built of hollow tile.

The cost of a house built of this material will compare favorably with one of brick, stone and wood, or brick and wood.

Can be used for Foundation Work

Contrary to popular belief, this material can be used to advantage for foundation work. The dead air space prevents condensation and thus does away with all dampness. Where there is a concentrated load on a particular point on the tile, it can be slushed up with cement to make a solid pier. Window lintels are treated in the same way.

Some Architects' Opinions

Some Toronto architects who have used hollow tile considerably are C. S. Cobb, Edward Yeigh, Eden Smith & Sons, and Bovel & Molesworth. They all speak

highly of hollow tile and claim that its biggest advantage is in the dead air space, which makes a house cooler in summer and warmer in winter. Another reason for its favor is that plaster is applied direct to the tile, thus doing away with all furring, which is subject to contraction and drying out. This reduces the cost of lath.

"Houses with stucco finish are all the style to-day," said Mr. C. S. Cobb, and hollow tile is about the easiest thing to which you can apply it. If a person does not like stucco, a house can be finished in brick veneer. You get just as good looking a house, and it is absolutely fireproof.

"I have used this material extensively in the United States. Over there it is well known, but in Canada, as yet, builders have not taken hold of it. The main reason for this is, I think, that it is the popular belief that the material is very expensive. Perhaps it is a little dearer than some other materials, just now. But the cause of this is that there is not enough used and it costs just as much to manufacture a small quantity as a large one. If it were in bigger demand, it could be turned out at very little increase in cost, the manufacturer would sell more and the price would come down. But then there is a saving in labor. A 12-in. tile occupies the space of about 12 bricks, so it can readily be seen the saving in laying them. A house can be put up in much quicker time. Mark my word, you'll see many hollow tile houses being put up within the next three or four years."

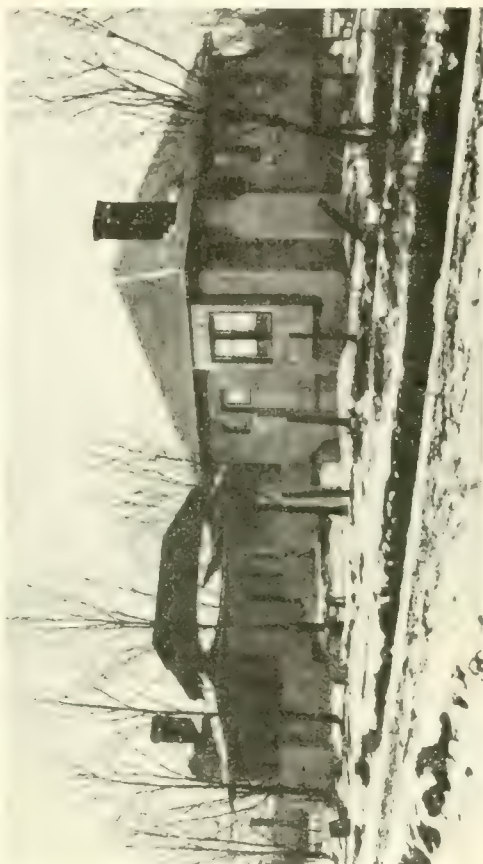
A Toronto Builder's Experience

S. B. Green, 96 Westmoreland Ave., Toronto, is a practical builder who has had years of experience in putting up buildings of hollow tile. Mr. Green is a Toronto boy, but, after learning his trade here as a bricklayer, went to the United States and engaged in the building game. He has put up many houses across the border and was the first man to erect a hollow tile house in the city of Toronto. This is shown on this



An 11-room, hollow tile dwelling erected by S. B. Green on Gothic Avenue, Toronto.

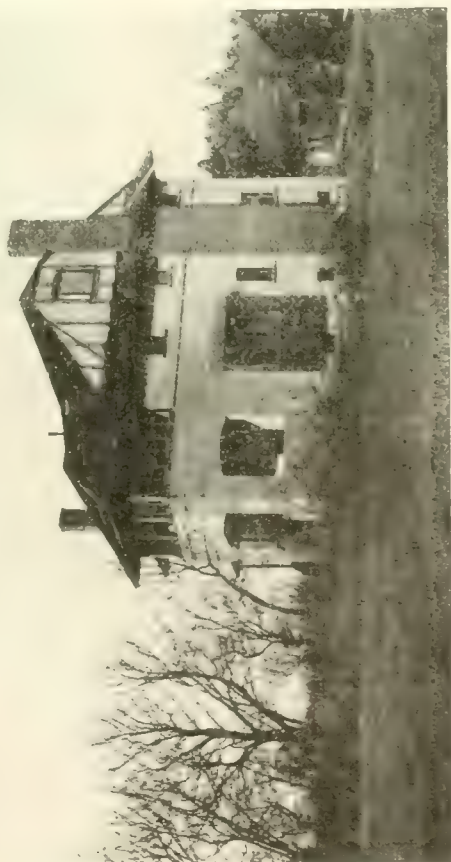
THE USE OF HOLLOW TILE IN THE CONSTRUCTION OF HOUSES



Two bungalows of hollow tile erected in Weston by S. B. Green, Toronto.



The same cottages with sand float finish.



Hollow tile house in Melrose Park, North Toronto. Edward Veigh, architect.



Construction view of hollow tile workers' cottages, erected at Oshawa, Ont., for A. O. White.

page. Two bungalow type dwellings erected by him are shown on the opposite page.

"When I came home to Canada about a year ago," said Mr. Green, "I could not buy brick for love nor money. I could not stand around doing nothing, so decided to erect a house of hollow tile, purely on speculation. When the house was being put up, other builders came round and told me I was crazy to think of such a thing. I let them call me all the names they cared to, but to-day, those same people are coming around and admiring the house and carefully considering following my example.

"I built this house, with the assistance of one laborer. From the time I left the ground to the time the house was finished but 10 days had elapsed. I don't think four bricklayers could have done the work in two weeks. This meant a big saving.

Some Advantages of Hollow Tile

"Now, as to some of the advantages of hollow tile. In the first place, it is so light. The construction is light but, under test, it has shown to be from 35 to 40 per cent. stronger than a solid brick wall. Another advantage is the hollow air chambers, which make the place cooler in summer and warmer in winter. The people living in the house I first put up say that last winter they burned less coal than they ever did in a brick house, and you know that a new house takes 20 per cent. more coal to heat it properly.

"In the construction of a house of hollow tile, you can do many things that would be impossible with brick. The window on the corner (see illustration) is built on an angle. This has absolutely no support whatever for four feet from the corner each way. No steel or iron has been used at all.

"The basement of my house is built of 12-in. hollow tile. Ten-inch tile has been used on the first floor and 8-in. on the second.

"All around the building, instead of putting on a frieze of metal or wood, I used 10-in. hollow tile laid flat on an 8-in. wall, giving a projection of two inches on the outside, which answered vastly better than a frieze of wood or metal. It has a much more massive appearance and adds to the harmony of the rest of the building.

"I have been unable to find any settlement whatever where tile has been used. Of course, where I have used wood there is bound to be some.

"The piers at the front and rear of the house are constructed of hollow tile also. It took me 15 minutes to erect each one of these. I don't think I could do this with any other material.

"The platform on the verandah is combination hollow tile and concrete and is the only one of its kind in Toronto. It is made of 4 in. x 12 in. hollow tile laid on flat and a four-inch web of concrete, 4 x 4. There is only 1¾ in. of solid material, yet it will stand any weight. I would not be afraid to put a whole house on it, if this were possible.

"Besides this house, I have erected two bungalows in Weston and am going into the business on a much bigger scale in the near future."

Duties of Building Superintendent

North Battleford, Saskatchewan.

I would esteem it a favor if you would kindly inform me at your earliest convenience, the actual duties of a building superintendent.

I will state briefly my reasons for such information.

I am under contract to put in certain cement concrete floors. First mixture 5 to 1 and finish 2 to 1, graded to flush traps in floor. Work to be under supervision of superintendent.

Is the superintendent supposed to give all levels and grades? Also to see that mixtures are of proper proportion? And cannot he be held responsible and compelled to make good, if through neglecting such duties, the work turns out unsatisfactory?

B. STREETER.

The following answer is given by the "American Carpenter and Builder":—

Your question is of a rather vague nature, since such duties will depend largely upon the kind of work and the size of the job. We hardly know how to interpret your letter. That is, whether you are to perform the contract specified under the immediate supervision of a superintendent, or whether you have plans and specifications which are to be followed, while the superintendent is to watch the progress of the work and pass upon its quality and the final acceptance of same.

You ask whether the superintendent is supposed to give all levels and grades. We would consider that this would be dependent on whether such levels and grades were carefully marked on the plans to be followed or not. If no levels are given on the plans, we would judge that the superintendent would be responsible for the marking of same and seeing that the contractor understood clearly what was expected of him.

The general duties of a superintendent or inspector may be divided into three parts.

1. Inspection of the materials to be employed.
2. Inspection of the methods used in preparing the materials.
3. Inspection of the construction or placing of the prepared materials in the structure.

In performing the first section of his duty, the inspector is required to pass upon the quality of the material delivered and determine whether they meet the requirements of the specifications or not, rejecting all that are defective.

Under the second division of his duty the inspector has to watch the methods employed in preparing the materials, to see that the quantities called for are used, and that the dimensions of all manufactured pieces correspond to those marked on the plans."

To efficiently perform his duty under the third section, the inspector must be familiar with the methods employed by the various craftsmen in executing their work. To provide against slighting by careless and indifferent workmen, constant vigilance is necessary, especially in parts of the work which are difficult of access, or will be covered up.

The specifications and plans for each particular work must be the inspector's guide as to the character of the materials and workmanship required, and in case of any discrepancy between them, or doubt as to the meaning of any of the clauses, the matter must be submitted without delay to the engineer or architect for an explanation.

On the failure of the contractor or any of his workmen to comply with the requirement of the specifications, the inspector should notify him or his representative of the defective work and allow him a reasonable time in which to make it good. If at the end of this time the rectification is not made, or if he refuses to comply with the notice, the inspector must immediately acquaint his chief with full particulars of the case, description of the defective work, character of the order given, and reasons advanced by the contractor for refusing to conform to it.



One of a block of five-room houses erected in Earls Court by H. V. Peardon, Toronto.

A Five-Room Frame House That Sells For \$660

A type of workman's home popular in the suburbs of Toronto—Total cost, including land, is about \$960.

EDITORIAL CORRESPONDENCE

WITH the great influx of immigrants from the Old Country, the question of housing these people has become a great problem. Most of them come to this country to get a fresh start, and after paying their passage over, have very little left. It is impossible for them to purchase a brick house of the type being erected to-day, and it is equally impossible for them to pay the rent asked by the owner of the average six-room house. Many of them have purchased small lots in the suburbs of the city and put up one and two-room shacks. In a great many cases they build these houses in their spare time—at nights and on Saturday afternoons. This is rather an expensive way of putting up a home, for the lumber, etc., must needs be bought in small quantities, for which a higher price is charged.

Semi-Ready Homes

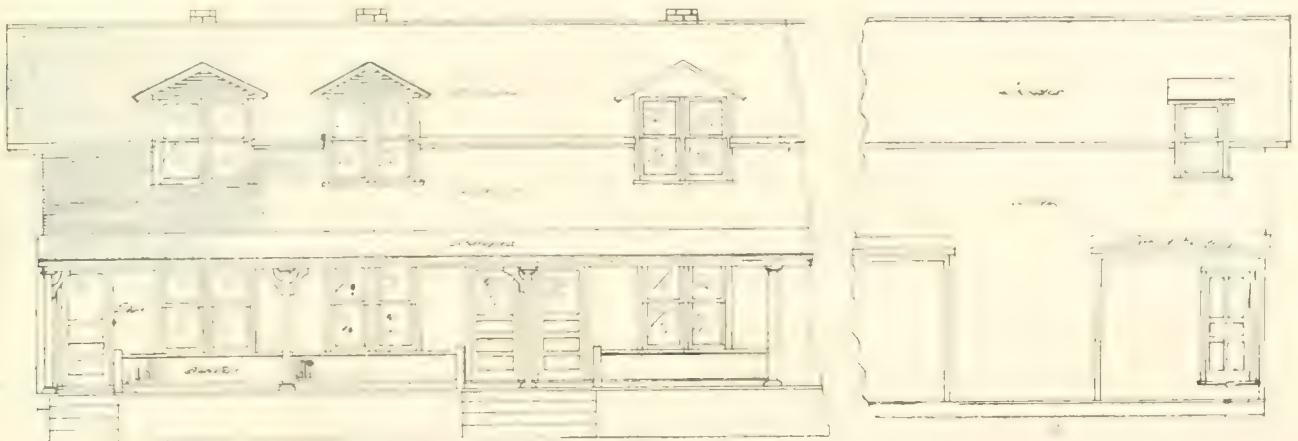
Manufacturers of semi-ready homes have relieved this situation to some extent by the proposition they have for the speculative builder and the man desiring a home of his own. They can put up a house cheaper than the man who tries it himself and who does just a little at a time. Most of their homes are built from stock plans, which means that large quantities of

lumber and fittings can be cut at one time on their machines, whereas the new arrival who is erecting the house himself can cut but one piece at a time.

Then, too, these firms buy their material in large quantities, at a price half of what the man who buys in small lots pays.

The accompanying illustrations show the elevation and floor plan of one of a block of five-room frame houses erected by V. A. Peardon from ready cut materials supplied by H. M. Lickley, Limited, from their mills at Gravenhurst, on Sellers Ave., Earls Court, a suburb of Toronto. This house was sold by the erector for \$660, without land. According to the builder, in a number of instances, other houses built on this plan have re-sold for \$1,400.

A good description of this house can be given in five words—a compact home for workmen. The dwelling is set on ten-inch posts, and the posts are imbedded in concrete footings, these being placed with five-foot centres. A parlor, dining-room, kitchen and two bedrooms, the latter each with a clothes closet, comprise the layout. The house is designed, however, so that a bathroom may be built over the kitchen by cutting through the clothes closet in the back room.



Front and side elevation of frame houses erected by H. V. Peardon.

As will be seen from the plans, a spacious verandah has been built on the front.

Two features of this house which are unusual in this district are that it has water in the kitchen and is wired for electricity. It, also, is lathed and plastered.

These houses can be made ready for occupation in ten weeks after the order received.

Production of Lime

The production of lime in Canada in 1911, according to returns from 75 producers, was 7,533,525 bushels, this being the amount sold or used, equivalent to about 263,673 tons, and valued at \$1,517,599, or an average of 20 cents per bushel, or \$5.75 per ton, states Mr. J. McLeish, B.A., chief of the division of mineral resources and statistics, in a recent report. The production in 1910 was reported as 5,848,146 bushels (204,685 tons) from 70 producers, valued at \$1,137,079, an average of 19 cents per bushel, thus showing an increased production in 1911 of 1,685,579 bushels or 22 per cent.

The average price per bushel varied from a minimum of 16 cents in Ontario to a maximum of 34 cents in British Columbia.

Hydrated lime was produced by three firms only, the sales being 5,023 tons.

A small quantity of lime is annually made in Prince Edward Island.

The value of the lime exported during the calendar year 1911 was \$39,536, the destination of shipments being mainly the United States. The quantity is not reported, but at the average price of lime in Canada (20 cents a bushel) the quantity would be about 692 tons.

The imports of lime during the same period were 228,538 barrels (22,853 tons), valued at \$161,985; an average of 70 cents per barrel, or \$7.08 per ton, and were derived chiefly from the United States.

In reviewing the production of lime by provinces it will be observed that the Provinces of Ontario and Quebec, being the chief centres of population, are the

largest producers, the former contributing in 1911 over 35 per cent. of the total quantity, and the latter 23 per cent.; the production west of the great lakes has, however, been rapidly increasing, these provinces accounting for nearly 24 per cent. of the total in 1911, as against 14 per cent. in 1908.

Trouble With Roof

Editor, Canadian Builder.—I have a factory roof with Paragon roofing and $\frac{3}{4}$ -in. ship lap, 2 x 6-in. rafters and $\frac{1}{2}$ -in. lumber nailed inside on rafters. Then 2-ply tar paper and $\frac{1}{2}$ -in. lumber again. The factory is heated by hot air, distributed through galvanized iron pipe. Ever since the frost came, the building has been wet from the ice that has formed on the roof. Can you tell me of some way to remedy this? Would I have to get air space to the outside between every rafter, or how can one stop the frost from forming on the outer roof?—Subscriber.

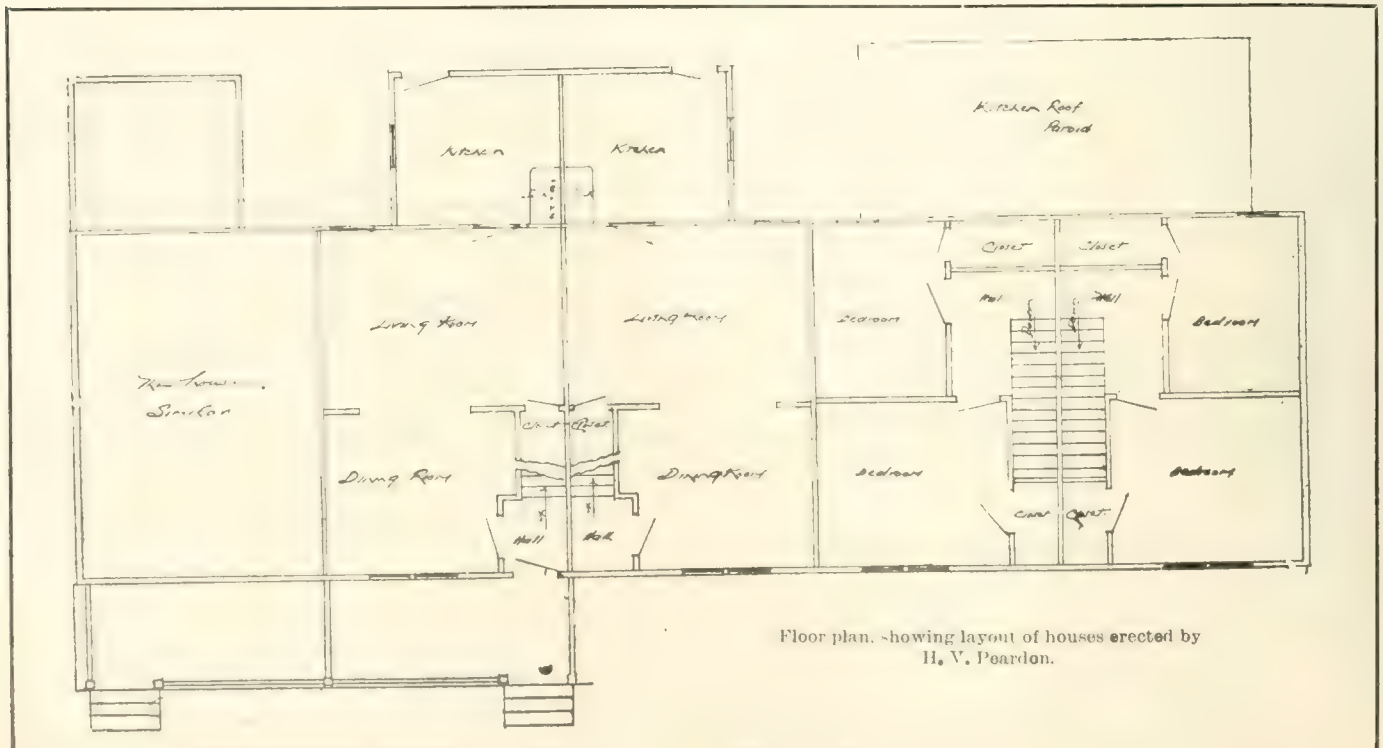
This man's trouble is condensation, and in order to overcome it he must have an air space and use an air-tight, water-tight paper.

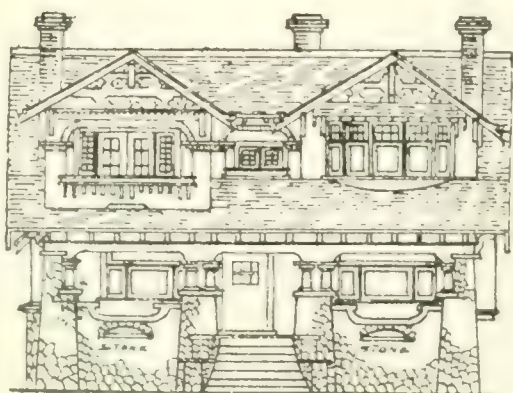
Brick Company Elects Officers

At the annual meeting of the Big Four Brick Co., Limited, the following officers and directors were elected: President, James McKenzie; vice-president, Albert Breckon; secretary, P. S. Graves; directors, Anson A. Gard, R. W. Taylor, C. L. Brooks and Robert Brawley.

The company has secured ground on the Weston road alongside of the G.T.R. and near the C.P.R. tracks, a short distance to the north of Eglinton Ave. Both clay and sand cement processes will be employed.

Thos. Withey, Regina, has been appointed scaffold inspector by the Provincial Government.





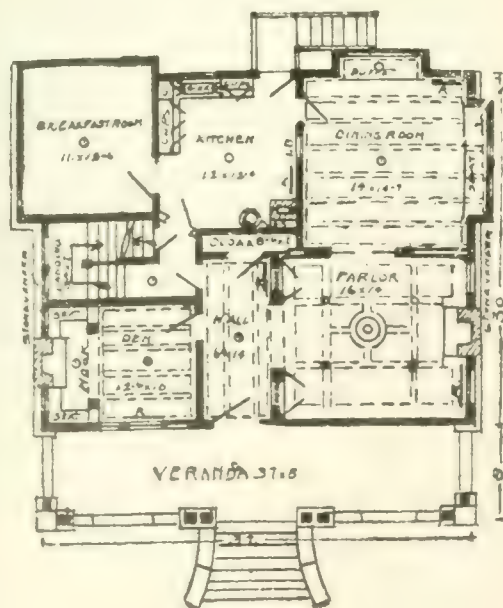
Front Elevation

A Beautiful Residence Overlooking the Pacific Ocean

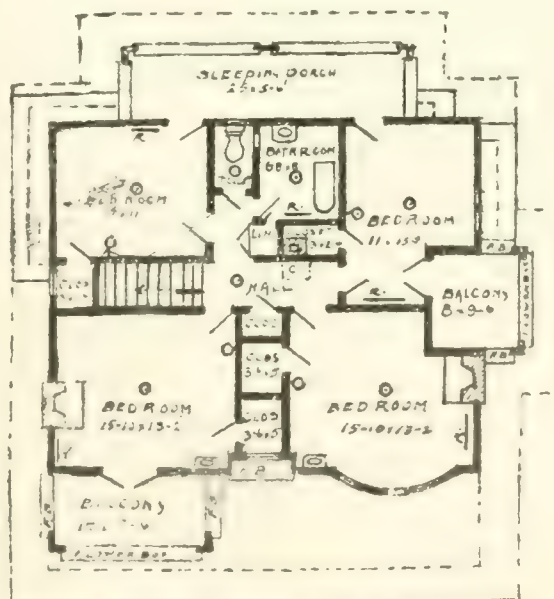
THE accompanying illustrations show the front elevation and floor plans of a British Columbia residence situated between First Avenue Road and Point Grey Road, Vancouver. As will be seen from the front elevation, it is of very attractive architecture with high cut stone foundation, Swiss roof design, sleeping porches and balconies. From the balconies and also from

the dining room is an unobstructed view of the Pacific Ocean.

The interior of this house is well finished. The spacious rooms have floors of quartered oak, inlaid with mahogany. There are four open fireplaces, an inglenook in the den, a large billiard room in the basement, hot and cold water throughout, and laundry.



Ground Floor Plan.



First Floor Plan.



Front elevation of the Public Library at Fort William, Ont.



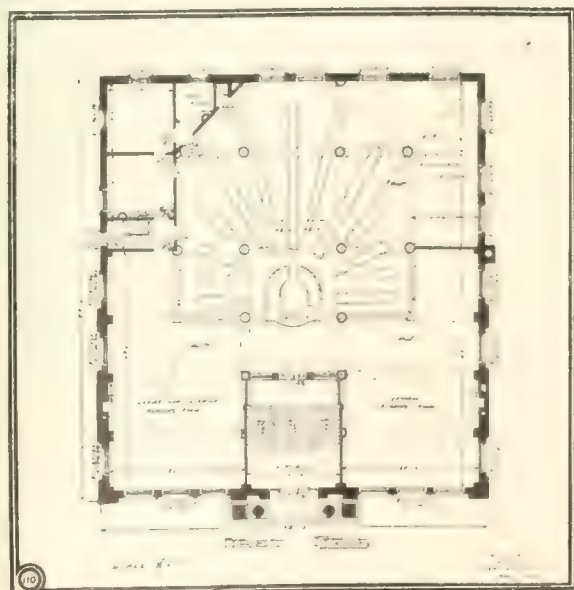
Arrangement of the children's department and reading room, Fort William Public Library.

View and Plans of Fort William Public Library

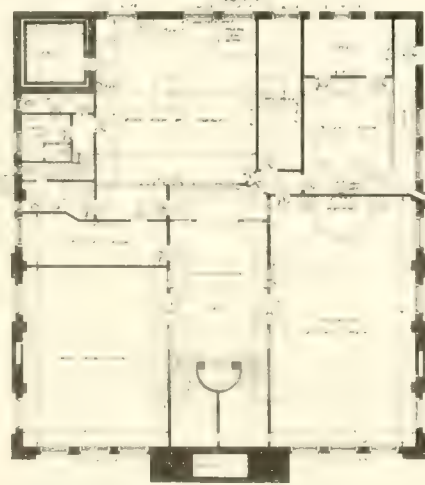
View showing men's reading room in the Fort William Public Library.



View looking into the stack room of the Fort William Public Library.



First floor plan.



Basement plan.

(Courtesy Ontario Dept. of Education.)

Some Artistic Fence Designs

In Western Canada many residences have artistic fence designs around them. In the accompanying illustrations are shown two popular designs manufactured by the Winnipeg Wire & Iron Works, corner Arlington St. and Portage Ave. Fig. 1 shows one of



Fig. 1.—Simple design of round rod fence.

neat, simple design that appears to be quite common in the west.

The fence shown in Fig. 1 is known as the "double bow." The inside rods are 5-16 inches and the outside rods are $\frac{3}{8}$ inches in diameter with 3 inch spaces between the rods. The gate is in keeping with the general design, and is swung from a post of steel tubing two inches in diameter.

Fig. 2 shows a more elaborate design with ornamental panel posts. The fence is constructed of $\frac{1}{2}$ inch square rods spaced 4 inches apart.

Fig. 3 is a photograph of the home of Mr. Chas. E. Hammersley, showing the style of fence given in detail in Fig. 2, with the gate in keeping with this more elaborate design. The fence has a frontage of 25 feet and extends back to enclose the lawn. The panel posts are 5 feet apart, but they may be placed with 6 ft. centres if desired, the distance depending on the frontage.

In the centre of the frontage is the gate set back from the street with the fence rounded off and extends back to the gate. The gate is entirely hand forged with a forged lily at the top and four copper roses, also

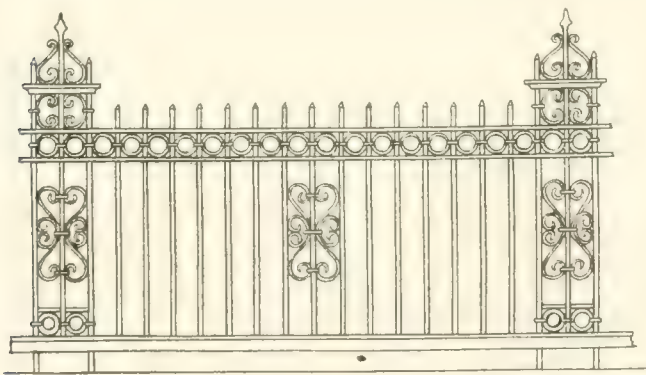


Fig. 2. Square rod fence with panel posts.

made at the forge, below. Leaves form the top of the gate and the background of the roses. This arrangement gives a very pretty effect.

Social Evening Toronto Builders' Exchange

On April 16 the members of the Builders' Exchange of the City of Toronto, held an enjoyable social evening in the rooms of the Exchange. Mr. Geo. Oakley, Jr., presided and about 80 were present. Alderman S. Morley Wickett gave an interesting talk on the

question of the civic line extension of the street railway system. A short but select program was rendered by some of Toronto's best concert artists, at the conclusion of which Mr. P. L. Fraser, the retiring secretary of the Exchange, was called, and Mr. John Aldridge, in a brief and witty speech, presented him, on behalf of the board and members of the Exchange, with a cabinet of silver, as a slight token of the esteem and appreciation felt by all for him.

Before the meeting broke up it was unanimously agreed to place on record that the Exchange thoroughly endorsed the principle of civic line extensions as set forth by Alderman Wickett.

P. L. Fraser Leaves Toronto Exchange

Mr. P. L. Fraser, for the past five years secretary of the Toronto Builders' Exchange, resigned from that position at the end of April to take up the position of sales manager of the Ontario National Brick Co., Toronto. This is a new concern, recently organized, with large offices in the Crown Life Bldg., at the corner of Queen and Victoria streets.

Mr. Fraser is well known to the building trade. As stated above, he was for five years secretary of the Toronto Exchange. He has also acted as secretary



Fig. 3.—Iron fence surrounding the home of Mr. Chas. E. Hammersley.

of the provincial association and at the recent convention in Calgary was appointed secretary, pro tem., of the national body.

With his good connection, success is sure to crown his efforts in his new work.

Some April Building Permits

	April, 1913.	April, 1912.	Increase.	4 mos. 1913.	4 mos. 1912.	Increase.
Berlin	\$ 79,220	\$ 121,133	\$ 41,913	\$ 211,784	\$ 178,293	\$ 33,491
Guelph	107,889	34,786	73,103	161,624	117,736	43,888
Hamilton	1,245,000	867,000	378,000	2,835,950	1,573,000	1,262,950
Kingston	132,430	95,625	36,805	220,725	114,949	105,776
London	521,330	180,187	341,143	641,074	290,728	350,346
Ottawa	787,300	457,000	330,300	1,180,730	861,735	318,995
Peterboro	116,536	18,308	98,228	131,756	28,213	103,543
Preston	95,475	68,350	27,125	128,850	121,850	7,000
Sudbury	66,880	54,238	12,642	130,480	Not reported.	
Toronto	3,740,826	2,842,995	897,831	8,632,400	6,058,825	2,573,575
Vancouver	1,107,452	1,632,805	524,353	5,183,815	4,968,212	215,603
Welland	66,115	22,685	43,430	116,305	73,905	42,400

Manufacturing in Canada

The United Electric Co. are now manufacturing the Tuec Stationary Air Cleaning System for Canada at 159 Richmond St. W., Toronto. The selling agencies of this firm are: Tuec Co., 419 Portage Ave., Winnipeg; Tuec Co. of Calgary, 812 First St., W., Calgary; James J. Martindale, 159 Richmond St. W., Toronto; and Tuec Co. of Montreal, 406 New Birk's Bld., Montreal.

The Canadian Builder and Carpenter

A Practical Paper Devoted to all Branches of the
Building Trades

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Vol. 3

TORONTO, MAY, 1913

No. 5

A Personal Word to Our Readers

Readers of the "Canadian Builder & Carpenter" who have been watching the paper will have noticed the increased size, and we hope, the improved quality of the reading matter.

One of the biggest features in making this paper a success has been the loyalty of its readers, and the fact that they have made use of the advertising columns as well as the reading matter. We want to continue to improve this paper, and we desire the increased co-operation of our readers. We are very anxious to get contributed articles from our readers, particularly in the carpentry line. Every wide-awake carpenter devises from time to time schemes for doing things more efficiently than ordinarily. It would not take much time to make a sketch and state in a few words what the scheme is.

Or if you have just completed a nice piece of carpentry work of which you are proud, you will probably be able to tell readers of "The Canadian Builder & Carpenter" something about it that will be of value and interest.

Or you may be making a specialty along some particular line; and as a result be a great deal more familiar with the work in your line than the average man. In that case you can probably write up articles, taking up the interesting features of your special line of work that would be of great value to other carpenters and builders.

And, above all, we wish every reader of "The Canadian Builder & Carpenter" to look upon this paper as his own paper—a paper to which he can write asking

questions and expressing his opinions. We know that there are many of our readers who are puzzled at times over one thing or another. When you are, write to the paper, and we will get the opinions of all our readers on the proposition.

In this way the paper will become the medium for the interchange of ideas; and by getting into discussions in the paper your work will become more interesting, and many a hazy subject will become clear.

For articles printed we will be able to pay sufficient to make it worth your while to take the time necessary to produce them; but of course the big value to be had

from anything of this kind is the knowledge that you have passed on something that will be of value to other men in your line, and that in exchange you are likely to get something that will be very valuable to you.

So please remember that we want to hear from every one of our readers.

Hemlock Getting Scarce

Hemlock is getting scarce. Prominent lumber dealers at a meeting held at the Queen's Hotel, Toronto, discussed the situation. Afterwards it was said \$20 per thousand might be asked for number one grade. There was a heavy demand last season owing to the building activity. For a number of years the lumbermen claim to have lost money on hemlock, but it was only last year that they had a profitable season.

Yellow pine, from the southern States, has been a competitor of hemlock, but even should the price of the latter be raised to \$20 the manufacturers think they can meet the southern product, which sells at \$24.50. Purchasers of yellow pine must make a cash payment of fifty per cent. before it is taken from the cars, while the rate of \$20 a thousand for hemlock would mean \$25 by the time it was unloaded.

The British Building Co., Limited, Montreal, has been incorporated with a capital stock of \$50,000.

"You Can't Beat Civility"

THESE are words which ought to be lettered in gold or illumined with fire, and hung in every office, shop, factory, corporation and institution in the world. They ought to be a motto for 1913, 1914, 1915 and so on to the end of time.

They were uttered in a flash of inspiration by a man in London whose business is the selling of licensed properties. He was explaining why foreigners—Frenchmen and Italians in particular—are ousting Englishmen in the management and ownership of British hotels and restaurants. "The Englishman can't bow and scrape like the foreigner," said—I've forgotten his name. And then with an intensity which I recall to this day, he exclaimed: "You can't beat civility!"

Think out for yourself the significance and truth of this bit of wisdom. Then apply it in your own case. When you are tempted to be "smart," sneering, ungracious, rude, short, surly, rough, truculent, remember that "you can't beat civility" in your choice of a weapon of offence and defence. It is as oil on troubled waters. It is the sun which thaws out the frost in others. It is the check on hasty tempers. It is the solvent of resistance. If you are the one canvassed, be civil. When you grow hot under injustice, rough treatment, discourtesy or malice, remember that the exercise of civility will win you more triumphs than explosions of wrath, or acts of retaliation. Think it out. Test the aphorism. Practise its implied behest. And if you find the words and the message good, pass them on.

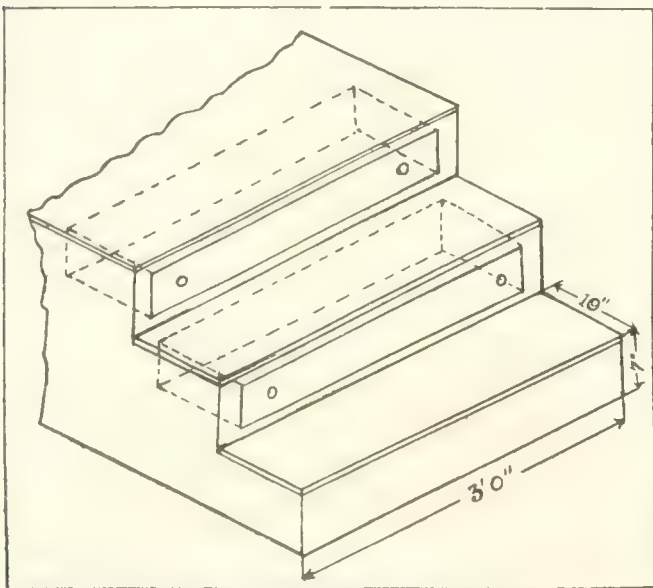
—John C. Kirkwood.

Carpentry and Woodworking

Providing Drawer Space in Small Bungalow

By M. E. D., Winnipeg

It is often a problem with carpenters how to provide ample cupboard facilities in a cottage or bungalow without encroaching on much-needed space. One west-ern carpenter adopted a plan which provided two extra drawers in the hallway where rubbers, gloves,



Isometric drawing of the steps showing arrangement of the drawers.

furs, etc. may be kept. The accompanying illustration shows how the idea was carried out.

There were three steps leading up to a landing at the turn of the stairs which were 3 ft. wide, 7 in. rise and 10 in. tread. The second and third risers were fitted with drawers and little flat drawer knobs were used so that clothing would not catch on them. The proposal to utilize this space for drawers readily met the approval of the people for whom the little bungalow was erected, and the result was very satisfactory.

Laying Floors by the Carpenter

Sometimes a carpenter who is very clever with his tools is a cabinet maker and almost any carpenter likes to be classed as a man of equal skill with a cabinet maker, yet there are many carpenters who balk at the idea of getting down on their knees to do a cabinet-like job in floor laying. Indeed, sometimes it looks as if the carpenter was bungling over the floor-laying business. He likes to stand flat on his feet and drive flooring nails with a hand ax, adz, or hatchet, but the idea of getting down on his knees and using a nail set and doing a really neat job of floor laying seldom appeals to the average house carpenter.

This is a mistake if a man really wants to qualify himself as a skilled workman. It may do for that class of workmen known as "saw and hatchet men" or to

qualify to lay attic floors or sub-floors, but the house to-day really demands a high grade of floors, no matter what the material—whether pine, oak, fir or maple, there should be a workmanlike job made of it. This means that a man must get down on his knees and use finish nails and a nail set. Moreover, the carpenter who takes pride in his work and in developing skill should enjoy doing a nice job. It is hard on the knees to get down and lay floors for a week, but the knees can be protected with proper padding and there are enough pride and satisfaction coming from a job well done to repay one afterwards.

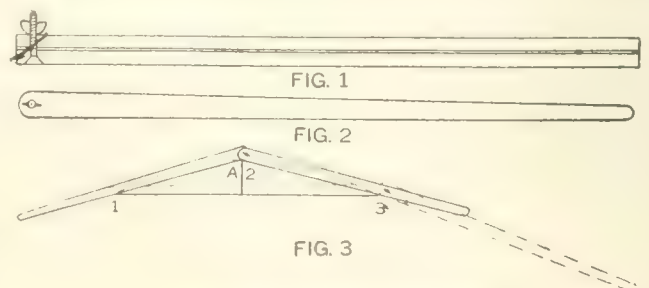
So, brother chips, don't balk at the idea of getting down on your knees and laying a floor neatly, but go at it with the intent to make a highly artistic job of it. It takes a little more time and effort, which you should figure on in making your estimate, but when properly done it should bring returns and also in the course of time a reputation for the carpenter that should help him out materially in getting other jobs.—Canadian Woodworker.

Wood Floors on the Ground

It is difficult to get a satisfactory wood floor on the ground—almost impossible. After five years' use, the Aberthaw Construction Company have taken up a floor laid with plank driven into tar, with hardwood above this, and the plank came out as powder. It is obvious that fermentation will set up wherever air is kept from timber that has any sap in it. The wood top is very nearly airtight. The tar is absolutely so. The result is, this disintegration of the plank will occur, as might be expected. For ground floors use either cement, asphalt, or tar concrete if possible.

Laying Out Segments

In laying out segments I use scribing strips, made as follows: Get two pieces, about $\frac{3}{8} \times 2$ in., the length of longest segment you wish to lay out (I usually have two sets, one 4 ft. and one 8 ft. long). Fasten the ends



Good device for laying out segments.

together with a stove bolt and thumbnut, as shown in Figs 1 and 2. Lay out points 1, 2 and 3, Fig. 3, drive a nail at points 1 and 3, spread out the scribing strips, place edges of arms against nails, bring the ends where they are fastened up to point 2, and fasten with thumb-

out. Place your pencil in the corner at A, move the strips from 1 to 2 keeping edges against the nails, and you have your segment. — Woodworker.

Toboggan Slide Construction

In the growing centres where it is desired to keep the young people in their own village or town, it is necessary to have places of amusement. Thus we find in the small places a pool room, a rink or a toboggan



Fig. 1. Front view of toboggan slide at Winnipeg.

slide. Illustrated herewith is a toboggan slide in the city of Winnipeg, but which may be adapted for use in any village, town or city.

In some places where there are hills a steep slide is not necessary. The one shown in the photograph is for a comparatively flat position.

The simple construction of the slide may be seen in Fig. 1. Cross pieces rest on the ground with up-rights cross-braced to hold the slide. The sides are supported by brackets built on the top cross-beams.

At the rear are two stairways as shown in Fig 2. The central part is for drawing up the toboggan to the "crow's nest" which is built up of 2 x 4 up-rights and rough boards. In the middle is a division of scantling to permit a toboggan starting across into the other track on starting.

Splicing Timbers

By H. P. Thompson

How many builders on this continent are bona fide tradesmen? or how many of them have served the necessary 5 or 7 years apprenticeship? Labor is scarce and trades are not specialized in Canada, hence the

necessity of employing men of every description, tradesmen and otherwise, to build cars. It is not surprising to learn that 75 per cent. of men employed as builders never saw the inside of a carpenter shop until they were 25 years of age. As time rolls on these men become capable of doing small jobs, and by careful observation of qualified mechanics they learn to some extent the trade, but never can these individuals expect to become the mechanic his shopmates are who commenced to learn the business when his mind was young and so much easier to grasp the 101 schemes and wrinkles which make up a trade. It is more especially to these men requiring a lift over the fence that this article is written.

The time comes along when they are called upon to splice up pieces of lumber and very often through want



Fig. 2. Rear view of toboggan slide at Winnipeg.

of proper knowledge as to the modus operandi, they are "up against it." By carefully following the methods set forth, the amateur mechanic will not only be able to make the splices, but will be able to fix each splice in its special position.

Fig. 1 illustrates an ordinary halved splice and will answer the purpose where supported the entire length, and no severe strain is brought to bear upon it. The

Various methods for splicing timbers.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.

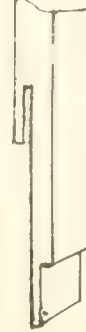


Fig. 6.



Fig. 7.

splice can also be made as in Fig. 2, but would only be fit for the same purpose as Fig. 1.

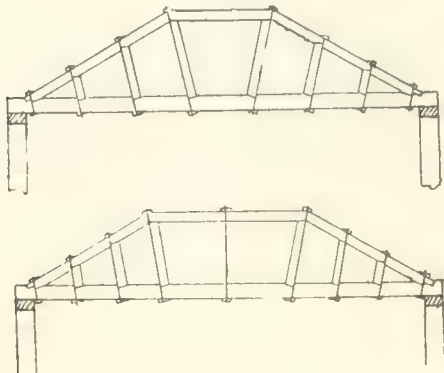
Another form of splice known technically as dove-tail halving is illustrated in Fig. 3, and possesses the advantages of being unable to pull apart endways when firmly nailed together, and the weight of the car floor or roof upon it, otherwise no more strength is obtained than Fig. 1. A very popular splice used for splicing sills in English car building shops is shown in Fig. 4, and when bolted together at an angle of about 15 degrees to effect the "pull" this method may be said to be fairly strong. One of the most useful splices known to the trade is the one illustrated in Fig. 5. Both pieces are cut alike (Fig. 6), and providing care is taken to make an accurate fit, a more substantial splice could scarcely be found.

Fig. 7 shows a variation of Fig. 5, the difference being a lug with a corresponding recess for the lug to fit into; notice, too, that the recess is made large than the lug to receive a wedge at either side. The advantage gained by this is that should the splice come loose at any time a couple of new wedges is all that is required to make a good joint of it.

Two Trusses Minus King and Queen Posts

By J. Barry

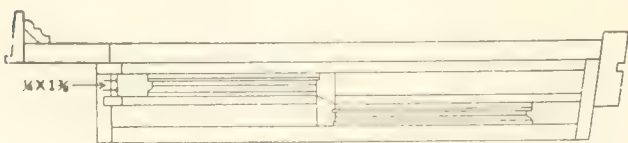
Since the introduction of steel and iron into carpentry, the old fashioned girders requiring king and queen posts are out of date. The above sketch is much



more simple than the old style, and equally as strong for small jobs. It is more readily constructed and cheaper for spans from 25 to 40 feet.

Suggestion to Sash and Frame Men

Through error in the factory, sometimes frames are made $\frac{1}{4}$ in. long for stock sash, and again some odd sash are found to be a trifle short for the opening. This can be remedied by tacking a strip in the groove above



"Tack a strip in the groove above top sash"

top sash. It is hardly noticeable and does not affect the looks of window when top sash is lowered. Also, it keeps a closed bottom rail by use of the checkrail lock.—Woodworker.

To Preserve Doors and Sash

By J. Crow Taylor

When you have extra doors or sash left over from a job, or on hand from any cause, their value for use on some other job is going to depend a whole lot on how well you take care of them. If they get coated with dirt or soiled in handling, it is very difficult to make them look nice enough again for natural finish. Indeed, even the sun shining on them will take the life and brightness out of the wood. Have some sort of a clean, dark closet or bin about your shop to keep these in. That's the way the sash and door people keep them bright—in dark warehouses and dust proof bins. Also, they take pains in handling them, so as not to soil them, and when they are shipping single doors out, the careful ones cover them with paper. That is a pretty good thing for you to do, cover the surface over with paper, either pasting or gluing it to the edges, or tack a lath on the edge, drawing the paper under it. Heavy, brown paper is best, but even old newspapers will beat no covering at all. And don't let these doors stand around loose in the shop to get soiled and messed up; make it a practice to put them away right when they are brought in. It is the only way to preserve their full value and get all you should out of them.—Canadian Woodworker.

Fastening Screws in Brick Walls

A simple way to fasten screws in tile or brick walls is to drill holes, not too large, for the screws, then tear up some paper, wet it and make a pulp. Pack this pulp tightly in the hole and turn in the screws.

The Late Daniel Simonds

Daniel Simonds, of Fitchburg, Mass., president of the Simonds Manufacturing Company, and the Simonds Canada Saw Co., Montreal, the largest saw manufacturers in the world, died at his summer home in Larchmont, Long Island, on May 5th, at the age of 65. His death takes away a man widely known in the industrial world. The name of Daniel Simonds was known worldwide because of the industry with which he was connected.

The Simonds Manufacturing Co. was incorporated in 1868, when the business organized by Abel Simonds was taken over. The late Daniel Simonds entered the employ of the company at this time and rose steadily from the bottom until he was made president in 1888.

As the business continued to grow, branches were established all over this continent and in London, England. In December, 1905, the Canadian factory was established at Montreal; and the Canadian business is now being conducted under the name of Simonds Canada Saw Co., Limited.

IT IS the desire of The Canadian Builder and Carpenter to make its quotations on building materials as accurate as possible, and to include in its list the materials in every-day use in the building trade. In order to do this we ask the co-operation of our readers, and would request that we be notified wherever a wrong price is given or a reader is of the opinion that a quotation on some important article is being left out.

Brick Work and Plastering

Damp-Proofing Masonry Structures

It is a scientific law that fluids and gases when mixed together or confined in a vessel arrange themselves according to their specific gravities, the heavier on the bottom. This is shown if different colored oils and water are mixed together in a glass; in a short while they separate into layers according to their respective specific gravities. If a test-tube is filled with water and the open end placed in a bowl containing water with a layer of oil on it, and the test-tube is raised so that the open end is partly in the water and partly in the oil, it will be found that the water will run out and will be replaced with oil, due to the fact that water is of higher specific gravity than oil. The experiment shows up better if the water is colored with methylene blue. Circulation of the same character takes place if dry air is used instead of oil and cooler, damp air instead of water.

Moisture in masonry is due to four different causes:

1. Construction water, i.e., water used in mortar, plaster, concrete or other building materials.
 2. Condensation due to differences in temperature between the air and the masonry.
 3. Infiltration due to defects in the roof, flooding of streets or breaks in water piping.
 4. Capillary forces conveying water from the ground.
- The first cause is of temporary nature and the moisture is generally eliminated before the dwellings are occupied, condensation can be lessened through rational heating and ventilation, infiltration is purely accidental and can be reduced to a minimum by proper precautions, but moisture due to capillary forces is always present and must be guarded against.

The common method of meeting the difficulty is to damp-proof the outside of the foundation, but where this is not possible, in the case of old buildings, the method herein described may be found useful. Another method employed is to prevent the water rising in the masonry by separating the foundation from the superstructure by means of an impenetrable, isolating film of glass, zinc, lead, asphalt, cement, or similar substance, but this method has the drawback of confining the moisture to the substructure, and being impossible of application to existing structures.

Belgian Method of Conducting Moisture.

A new method developed by Achille Knapen, Belgian engineer, consists in placing porous hollow bricks in an inclined position, and developing a condition of moisture flow as discussed above. Moisture in the masonry is conducted by means of the capillary forces to this brick and there evaporated on the walls of the circular hole. This not only makes the air damper but cooler, because the heat necessary for evaporation of the water is taken from it. If the velocity of the circulating air in the brick is about 6 inches per second, not less than 350 cu. ft. of air travels up and down the brick in one day.

It is necessary to select the right dimension of the

hole in the brick. Diameters less than 1 inch do not permit circulation because the friction loss in the hole is too large in comparison with the small difference in the specific gravities of dry and moist air. But should, on the other hand, the diameter be larger than $1\frac{1}{2}$ inches the circulation would be so violent that the incoming and outgoing air would mix, thus preventing the continuous escape of the moist air. The size of the hole, therefore, should be between 1 inch and $1\frac{1}{2}$ inch, the exact dimension depending largely upon the porosity of the brick. Of equal importance also is the inclination, which must permit the free circulation of air through the whole length of the brick and not only in front. To protect the opening from being clogged it is covered with a small wire grating.

Bricks of this kind are placed in rows above each other and must not be too far apart. The area of action is of circular shape and its diameter varies from five times to eleven times the diameter of the hole. The areas of action of adjacent bricks must overlap so as to prevent the moisture from rising between them. It is found that the hollow bricks must extend somewhat further than the middle of the wall. For very heavy masonry it is found that 2-foot 6-inch to 3-foot walls will suffice. The time necessary to dry an old wall depends upon its thickness, and varies from 30 days to 150 days.—Engineering Record.

The Chimney Corner

By Edw. A. Jackson in Keith's Magazine

When mantels are composed entirely of brick or tile, it is desirable to have some metal work to ornament and to protect the facing. For this use, nothing is so successful as an ornamental hood.

Metal brackets, chandeliers and metal ornaments applied to the face and edges of the chimneys often add to the beauty of the mantels, but none of these seem to be quite as pleasing as a metal hood, which comes down over the fireplace opening some six to eight inches and which runs up over the top and sides so as to give a graceful contour against the facings. Most architectural ornaments originated from some structural necessity, and the decorative hood has its inspiration in the fireplace of earlier days, when the hoods were absolutely needed to collect the smoke and to help the draft up the chimney.

In the primitive house, the fire was built in the centre of the room, and this bonfire blazed or smoked at its own sweet pleasure, the smoke and much of the heat escaping through a hole in the room. Later, the fire was built against a wall, and the smoke crept up the side of the room to an opening near the rafters. But, of course, much of the gas and soot covered all the walls and ceiling.

A hood was then designed to hang over the fireplace, this being supported by brackets, or in some cases by columns. This hood was usually of stone, and was of

such a height and projection that a group of men could stand around the fire, beneath the hood itself.

This style of fireplace can still be seen in the existing European castles built in the fifteenth century.

The chimney was developed in the following centuries, so that the hood was not so necessary. By chimney is meant the tube or flue that runs from the fireplace to the top of the house, as compared with the previous plan of merely letting the smoke escape through a hole in the wall or ceiling.

Construction of Chimney.

The construction of the chimney confined the smoke, secured a strong upward current or "draft," and the fireplace was gradually made smaller, and the hood ceased to be necessary. Now the tendency is swinging the other way, and the demand for large open fireplaces makes necessary and appropriate the use of hoods, with all their possibilities for decoration.

To the one who has a smoky fireplace because of faulty construction, a hood is the simplest, though not always the best remedy. If the fireplace flue is too small for the fireplace opening, the hood is beneficial, as it reduces the size of the fireplace and brings it into proportion to the flue.

Safe Rule to Prevent Smoke.

A safe rule is to have the cross section of the smoke flue one-twelfth the area of the fireplace opening. Less flue than this will sometimes answer if the chimney is straight and the flue is lined and is therefore smooth.

When the fireplace smokes, one can easily test as to the efficiency of the hood by trying a plain piece of tin, or wood or cardboard at the top of the fireplace. Try the smallest size that will keep in the smoke as, of course, this shield cuts off the beauty of the fire as the blaze and sparks pass into the throat.

While the firelight is cut off by the metal hood, there is little heat lost, as the warmth is quickly radiated by the metal into the room. In fact, the modern English houses frequently have metal hoods running from fireplace up to the top of the mantle, so that the heat from the fire and smoke will be sent into the room and not lost up the chimney. This idea of saving heat from the smoke, by means of the metal hood can well be developed so that the warmth saved will be used to heat a room on the floor above.

When the draft is fairly good, and the fire smokes only at the start before the chimney is warmed, usually a blower, a large flat piece of sheet iron, raised say six inches from the floor by iron feet but otherwise fitting the fireplace snugly on all sides, will cor-

rect the draft so that a permanent hood will not be needed. Or the hood itself can be made so as to hang in place only when it may be needed.

New Method of Reinforcing Brick

In past years, reinforced concrete has been used as one of the leading construction materials for buildings and larger blocks. Now, however, a method has been devised of reinforcing brick work by embedding a specially-prepared wire mesh of highly tested tensile strength in the mortar between the brick.

"H. B." Reinforcement, an English product for which the Reinforced Brickwork Co., Winnipeg, are agents, placed in the mortar between the bricks, has been found an effectual method of binding together the courses or units of brick work or other materials in walls. This method of construction combines the two essentials of good building—minimum expense and maximum strength. This system has, after careful investigation, been adopted by the leading departments of the British Government. The mesh, when embedded in the mortar joints of the brickwork, forms a continuous bond, and the mortar becomes the strength of the brick wall.

The Term "Neat" as a Building Phrase

I have seen the word "neat" used in connection with plastering in *The Canadian Builder*. Will you please explain the meaning of it?—W. W., Western Canada.

The term "neat" used in connection with plastering has reference to plaster being complete in itself. For instance, hardwall plaster is advertised as "neat." This means it is complete in itself and does not require the addition of anything else before using. As soon as anything is added to the preparation it is not "neat."—Editor.

Chimneys are modern; that is, chimneys with fireplaces and flues. None of the Roman ruins show chimneys like ours. There are none in the restored buildings in Herculaneum and Pompeii. Roman architects complained that their decorations were smoked up. A kitchen in Rome was always sooty. Braziers were used in the living rooms. The chimney of antiquity consisted of a hole in the roof. The wealthy Romans used carefully dried wood which would burn in the room without soot. The modern chimney was first used in Europe in the fourteenth century. The oldest certain account of a chimney places it in Venice in 1347.



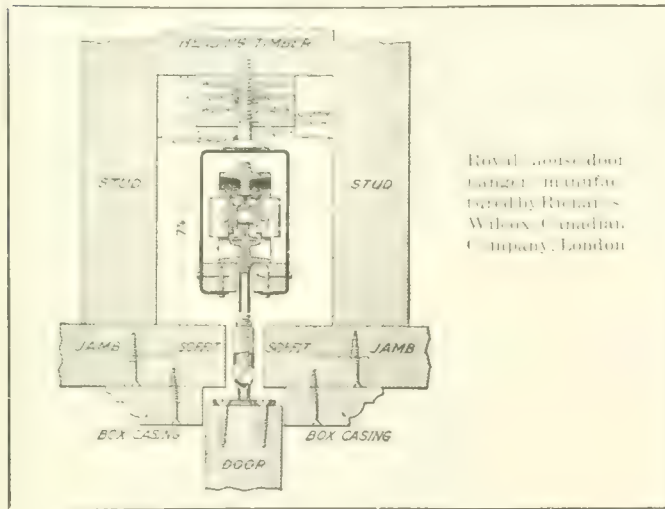
Alexandra Court Mansions, Calcutta, India. "H.B." patent brickwork reinforcement used throughout.

New Equipment

New House Door Hanger

The Richards-Wileox Canadian Co., Ltd., who recently opened a factory at London, Ont., to make the full Richards-Wileox line in Canada, is featuring a new House Door Hanger known as the "Royal."

The manufacturers claim for it particular merit as compared with the ordinary side-hung hanger, claiming that the strain on the side-hung hanger is always a "side strain" on door, track and hanger, which, in



Royal house door hanger, manufactured by Richards-Wileox Canadian Company, London.

the course of years, is liable to get out of position, whereas with a center-hung hanger the strain is always "dead center," the weight is evenly distributed on the hanger, the track and the header, and there is no possibility of any part of the appliance getting out of position. The doors always hang true, and do not bind, top or bottom.

Another particular advantage claimed for this hanger, is the easy way to remove hanger or track without disturbing walls. The removal of the box casing and the soffit gives access to the adjustment screws which hold the track to the header. If sufficient adjustment can not be secured that way, or for any reason it becomes necessary to take out the track, it can be removed without disturbing the header. Additional adjustment is provided in hanger, for which no removal of parts is necessary.

A third advantage claimed for this hanger is the fact that it is enclosed in covered steel track, so that no plaster or dirt can accumulate on the track nor in the hanger to interfere with its operation.

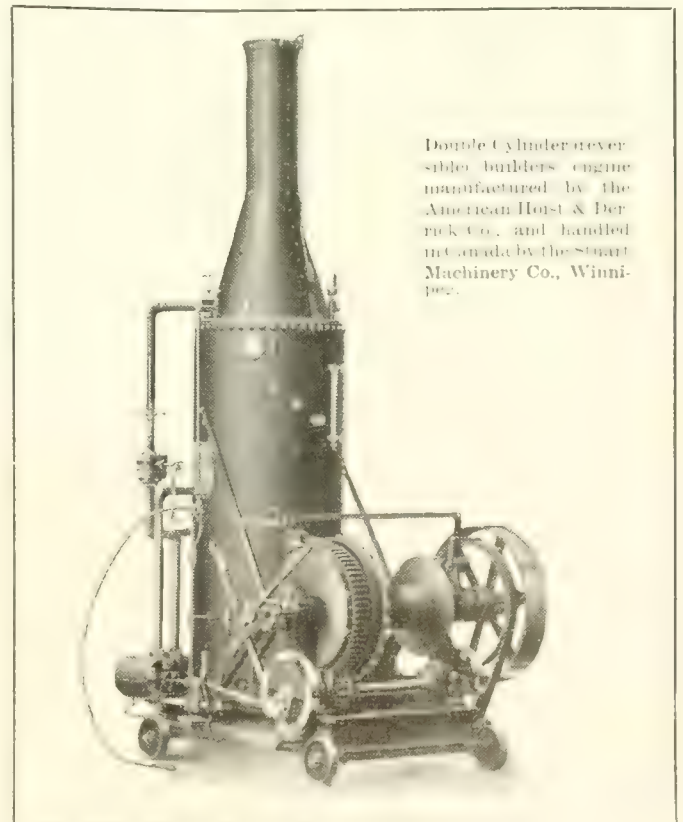
Automatic Concrete Mixer

An interesting circular has been issued by the Mapes Co., Limited, Calgary, Alta., describing the operation of the Automatic concrete mixer, what this mixer will do in the way of quantity turned out per day and information stating when it will pay to purchase a

concrete mixer. The mixer works on the hour glass principle and builders should be interested in reading a description of this machine, if only for the sake of seeing how this principle is applied to a concrete mixer. The Mapes Co. will be glad to send this circular to any reader who mentions this paper.

New Double Cylinder Builders' Engine

Herewith is illustrated a double cylinder reversible builders' engine, manufactured by the American Hoist & Derrick Co., for which the Stuart Machinery Co., Limited, Winnipeg, are sole Canadian selling agents. This engine is designed specially for building contractors and will hoist timber, stone, operate a derrick, do sheet piling and light pile driving, run circular saws, pumps, etc. Being reversible, it will run a material elevator, and has a foot brake on elevator sheave for quick stops or to hold an elevator cage



Double Cylinder reversible builders engine manufactured by the American Hoist & Derrick Co., and handled in Canada by the Stuart Machinery Co., Winnipeg.

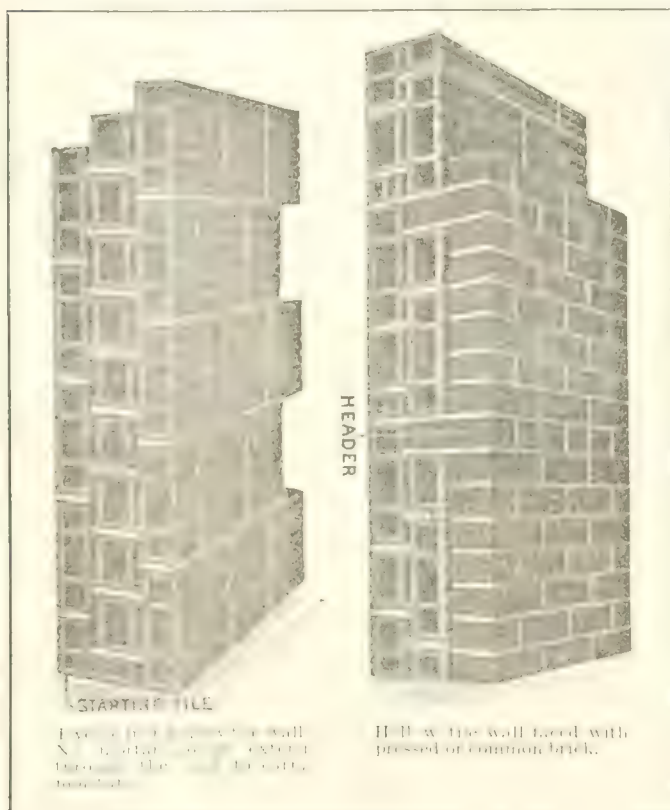
at a given point. The friction drum is 8 inches in diameter and 18 in. between flanges. Flanges are 6 in. deep, the drum holding about 200 feet of Manila rope or 400 feet of wire rope. The 30-in. elevator sheave has a concave surface about which two or three wraps of the elevator rope are taken, and the friction of the rope in this concave surface is sufficient to pull a load of 800 pounds.

A belt pulley or winch head can be used in the place

of the large sheave for driving a saw, pump, etc. The elevator sheave, belt pulley and winch head are interchangeable, and by means of a hand lever the engineer can instantly unclutch these attachments, giving free use of the friction drum and hoisting engine.

"Denison" Hollow Tile

The accompanying illustrations show samples of work that can be done with "Denison" hollow tile, for which Braid & McCurdy, Winnipeg, Man., are selling agents in Canada. This tile is adapted to stucco



houses, walls faced with common or facing brick, foundations, partitions, etc. Elsewhere in this issue appears an article on the use of hollow tile in house construction, and readers may learn from it some of the advantages of this material.

Braid & McCurdy are distributing a booklet showing the many uses to which hollow tile can be put. The book also contains illustrations of the elevations and floor plans of several different style buildings. A copy may be had on request.

Molding Firm Enlarges Plant

The Builders' Moulding Co., 95 Richmond St. West, Toronto, have doubled the capacity of their plant by securing a lease on the basement of the factory next door to their shop. New machinery has been purchased, which will enable them to turn out twice the amount of work they have in the past.

This firm manufactures plate rails, chair rails and room and frame mouldings. They have been in business but a little over a year and the fact that they have had to double their plant in this short time is evidence of the high class work they turn out.

New Companies Incorporated

The Ontario Gazette contains notice of the incorporation of the Lautz-Dunham Co., Limited, Toronto, with a capital stock of \$40,000. They will manufacture and deal in marble, tile, fireplace fittings, etc.

Columbia Western Lumber Yards, Limited, Toronto, \$5,000,000.

Maclean Sutherland Building Co., Limited, Winnipeg, \$20,000.

The Shields Lumber Co., Kamloops, B.C., \$500,000.

The British Building Co., Limited, Montreal, \$50,000.

The Geo. E. Hemsley Co., Limited, Montreal. Jewelry manufacturers, \$50,000.

Grand Gypsum, Limited, Hamilton, \$50,000. They will deal in rock gypsum, crushed stone, cement, lime, etc.

Canadian Yale & Towne Co.'s New Home

The Yale & Towne Manufacturing Co. have removed their executive offices from 9 Murray St., to 9 East 40th St., New York City. This is in the centre of the up-town section of the city and in the heart of the hotel district.

The site comprises a lot 50 x 100 feet, occupied by a 12-storey building designed specially for the Yale & Towne Co. The entire ground floor is devoted to a series of exhibit rooms which, when completed, (about July 1st) will comprise one of the largest displays of locks and builders' hardware ever made. The base-



The new office of the Yale & Towne Manufacturing Co. at 9 East 40th Street, New York City.

The Stuart Machinery Co., Limited

764 Main Street :: Winnipeg



Machinery and Equipment for Builders and Contractors

Milwaukee Concrete Mixers

Our Proposition to You

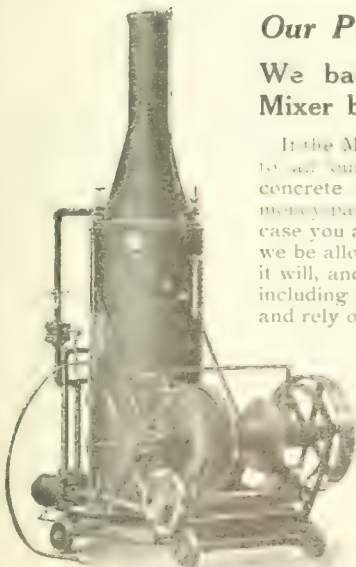
We back our faith in the Milwaukee Mixer by the following offer:

If the Milwaukee Concrete Mixer does not come up to all our claims as to capacity, power, amount of concrete that can be produced in a given time, all money paid will be refunded. Providing, however, in case you are unable to accomplish what we claim, that we be allowed to furnish a demonstrator to prove that it will, and if we are unable to do so, all money paid, including freight, will be refunded. We take the risk and rely on the merits of our mixer, and your fairness.

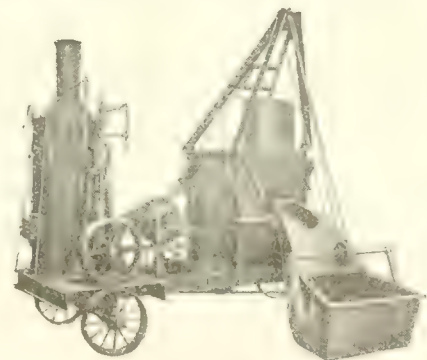
No firm ever made, or can make, a more straightforward offer than this, as it will not cost you a cent if we fail to convince you of the superiority of the Milwaukee Concrete Mixer.

Mr. Builder and Contractor,

When you are in the market for any line of equipment or supplies, write us for our catalogues and prices on the lines you wish. Write to-day for catalogue on the hoist illustrated here. It will come in handy sometime when you want information and prices on hoists.



No. 60 American Reversible
Builders' Hoist



Milwaukee Concrete Mixer

The Stuart Machinery Co., Limited

764 Main Street :: Winnipeg

ment will be occupied by the local salesroom and the repair department. The upper floors will be devoted to general offices.

Leather Card Case for Western Canada Builders

The Dominion Gypsum Co., McArthur Bldg., Winnipeg, are sending to builders in the four Western Canada provinces who are interested in wall plaster, a neat folding leather card case. The case is divided into three parts and is particularly handy for builders for carrying cards or memos and keeping them clean. It folds up to fit the vest pocket. A letter from a builder, requesting one of these leather cases and mentioning The Canadian Builder, will receive a prompt reply.

New Secretary of Toronto Exchange

Mr. Arthur E. Flower, the new secretary of the Toronto Builders' Exchange, comes from London, England. His early business training was taken up as an accountant, but he eventually joined his father in the building and decorating business and worked with him for ten years. They specialized in artistic joining and decoration work.

Mr. Flower has had considerable experience in association work and the Toronto exchange has acquired the services of a good man. He will have to work hard to maintain the standard set by the late secretary, P. L. Fraser, but he is a hustler and members can look to him to give his best efforts for the good of the association.



ARTHUR E. FLOWER
Secretary, Toronto Builders' Exchange

Build Quicker—Cheaper— Better—with

BISHOPRIC WALL BOARD AND SHEATHING

Bishopric Wall Board is made by imbedding dressed, kiln-dried lath, under 500 lbs. pressure, in sheets of hot Asphalt-Mastic, and surfacing the other side with sized fibre board. The lath gives it stiffness, the fibre board gives a surface that is easily decorated, and the patented Asphalt-Mastic makes it moisture proof, rat and vermin proof, fire resisting and practically everlasting.

Bishopric Wall Board comes in sheets 4 feet square, ready to apply. Prices, \$2.50 per 100 sq. ft., \$6.40 per crate of 16 sheets, 256 sq. ft., f.o.b. Factory, Ottawa, Ont.

Write for catalogue and sample.



We want exclusive agents
Are you interested?

**Bishopric Wall
Board Co. Ltd.**

Canada Life Bldg.
Ottawa, Ont.

BOOKS for Builders and Carpenters

The Largest Stock in Western Canada

*Send post card for list
of Books and Prices*

Also full line of Drawing Instruments and Materials; Engineering and Architects' Supplies

*Write us for booklets on these lines
Free to Readers of Canadian Builder*

JOHN A. HART CO.

McIntyre Block, Winnipeg

SEMI-READY HOMES

What They Are and Why You Should Use Them

THE SEMI-READY

Home is a Building on exactly the same lines as the ordinary construction, **except and the big point is this**, it is all prepared at the factory ready to erect.



Our Way

YOU send us a sketch of the style of house you want and what you are prepared to pay.

We will make plans of what we can do for you along with a price which includes everything for your house from the foundation to the locks on the doors.

In adopting our system you save:

1. Architects' fees;
2. Retail lumber profit;
3. Retail profits on glass, hardware and paint;
4. Worry—because all you have to estimate on is the freight and cost of erection.

How do we manage this? Because we handle the lumber from the log to the people. We are wholesale agents for glass, hardware and paints, and import them in large quantities. We will ship a house of average size in ten days from date of order. Should you decide not to build after we have prepared special plans for you we will charge you a fee of \$10.00 for the plans.

The Other Way

YOU decide to build and employ an architect to draw plans and get estimates and this will cost you 5 per cent. of the cost of the house. You then on your estimate have to pay wholesale and retail profit on lumber and other materials as well as a profit of 10 per cent. to your contractor on same.

You have the worry of arranging and dealing with several firms such as the carpenter, painter, glass merchant, hardware merchant and the architect.

It has been proved by everyone who has built a house or building of any kind that the estimates are usually exceeded by twenty-five or thirty per cent.

The principal worry is that, having so many contractors to deal with—your house usually takes from six to twelve months to build.

MORAL: Better to deal with one firm who can save you time, money and worry, and who are specialists in this particular business.

We are Specialists in

Planing Mill and Interior Fitting Work of all kinds, including sash, doors, panelling, stair work and everything pertaining to a building, from the lintels of the basement to the buffet in the dining room.

*See our representative at 709 Kent Bldg., Toronto
or write to us*

H. M. Lickley, Limited, GRAVENHURST
Ontario

Price List of Building Materials — Revised to Date

	PRICE AT MONTREAL	PRICE AT TORONTO	PRICE AT WINNIPEG	PRICE AT VANCOUVER
Hemlock Lumber				
2 x 4 in. to 2 x 12 in., 8 to 14 ft.	\$20.00	\$28.00 to 29.00	\$29.00	
2 x 4 in. to 2 x 12 in., 16 ft.	22.00	26.00 to 28.00	29.00	
2 x 4 in. to 2 x 12 in., 18 ft.		29.00	29.00	
1 in. Hemlock No. 1	20.00	28.00		
No. 1 hemlock decking	23.00	27.00		
No. 2 hemlock dimension and 1 in.		24.00		
Pine				
1 in. common and better pine 8 to 12 in. wide, rough	\$27.00 to 30.00	\$38.00 to 40.00		
2 in. white pine, bill stock	29.00 to 33.00	29.00 to 33.00		
7/8 x 8 and 10 in. pine shelving	36.00 to 45.00	36.00 to 40.00		
7/8 x 12 pine shelving	42.00 to 50.00	45.00		
No. 1 white pine flooring	40.00	37.00		
No. 1 spruce flooring	30.00	32.00		
No. 1 pine decking, D2S	40.00	33.00		
Space decking		32.00		
No. 1 pine V. or beaded sheeting	37.50	39.00		
No. 2 pine V. or beaded sheeting	30.00	36.00		
No. 1 Common Yellow Pine				
2 x 4 in. to 2 x 11 in., 10 to 16 ft.		\$28.00 to 32.00		
2 x 4 in. to 2 x 14 in., 18 to 20 ft.		30.50 to 34.50		
2 x 4 in. to 2 x 14 in., 22 to 24 ft.		32.50 to 37.00		
Yellow Pine Finish				
4/4 x 6, 8, 10 and 12 B. & B. Steam Finish..		\$39.00		
5/4 x " " " " " "		41.00		
6/4 x " " " " " "		41.00		
8/4 x " " " " " "		41.00		
4/4 x " " " " " " Smoke Finish		37.00		
5/4 x " " " " " "		39.00		
6/4 x " " " " " "		39.00		
8/4 x " " " " " "		39.00		
Pine Trim for Paint Finish				
4 in. casing, per 100 ft.	\$1.75	\$2.00		
5 in. casing, per 100 ft.	2.10	2.30		
8 in. pine base, per 100 ft.	3.25	3.48		
10 in. pine base, per 100 ft.	4.20	4.54		
4 in. pine window stool, per 100 ft.	2.75	2.75		
Shingles, Lath Roofing, Etc.				
XXX B. C. cedar shingles		\$3.90 per M	\$4.00 & 3.50 per M	\$2.20 & 2.10 per M
N. B. Extras		3.50		
N. B. Clears		2.90		
No. 1 pine lath	5.00	5.50 per M	5.75 per M	2.25 per M
No. 2 pine lath	4.50	5.00		
No. 1 spruce lath	4.00	4.50		
Metal lath			.16 to .20	
Roofing Felt (2 ply)		3.50 per square	2.50 per roll	
Cedar Posts—Fence				
5 in. at small end	5c. foot	.25 each		
7 in. at small end	7c. foot	.35 each		
Hardware				
Nails, wire, common	\$2.35 base keg	\$2.55 cwt.	\$3.70 per keg	\$3.25 per keg
Nails, cut, common	2.55 " "	2.85	3.70	4.25
Sash weights, cast iron	1.50 per 100 lbs.	1.75		
Tarred felt paper	.40 roll	.55 roll	.90 per roll	.90 per roll
Building paper	.30 roll	.45	.75	.70
Insulating paper			1.25	
Glass				
United inches		Star D.D.		
Up 25		\$4.25 6.25		
26-40		4.65 6.75		
41-50		5.10 7.50		
51-60		5.35 8.50		
61-70		5.75 9.75		
71-80		6.25 11.00		
81-85		7.50 12.50		
86-90			15.00	
91-95			17.50	
96-100			20.50	

NOTE TO READERS. We would be glad to have suggestions from readers as to the extension or modification of this list.

How to Make the Price of Your Subscription

¶ Readers of The Canadian Builder who will spend a few minutes for one evening with pen (or pencil) and paper, may easily make the price of his subscription. We would like to have the pleasure of sending you back the dollar you paid for your subscription.

The Canadian Builder has now over five thousand subscribers so that if each reader writes us an article giving a useful idea, it will cost us over \$5000. Read our suggestion below and then send along your suggestion.

WE PAY FOR IDEAS

¶ In the line of your daily work you have probably learned some "kink" or short method of using a square, finishing some part, such as doors, windows, etc., using a saw or any of the many tools used in the construction of a house. Perhaps there are all the ideas another builder would be glad to get - so pass them along.

¶ In reading the paper each month perhaps some of the articles suggest schemes that you have used. When these are fresh in your mind write a short, concise description of the method you use, draw a rough sketch with pencil, and mail to us. We will make the finished drawing; the article will appear in next issue and your remittance will be mailed you on publication.

¶ Perhaps your article will be worth more than a dollar. If you have built a house, store, school, library, church, barn, etc., and will send us description and plans of it we will pay you considerably more than the price of your subscription, depending on the length and value of the article.

¶ Speaking of plans! During the past year we have published fifty or more of various buildings. Have you made a study of these plans? What are your opinions in regard to them? Would you suggest any changes in any of the plans which would add to the usefulness of the building. Let us know your opinions. Some other builder will appreciate your suggestions, and perhaps you will benefit by the suggestions of others. By all means let us have your comments on the plans published.

¶ We have also been publishing each month a great deal of useful information and articles by various writers. Do you agree with everything that has been said? We cannot say that we have agreed with all the opinions expressed, but our columns are open to the discussion of questions of interest to Canadian Builders and Carpenters from all standpoints. If, therefore, you have any criticisms or different points of view, let us have them.

¶ Have you noticed that recently we have greatly increased the number of pages of reading matter in The Canadian Builder? In order to cover the wide range of subjects of vital interest to Builders, this has been made necessary. And the end is not yet. We have bigger and better things in view for our readers.

¶ We have been wondering if there are any subjects of special interest to our readers, which we are not touching upon. How can we make The Canadian Builder and Carpenter of greater service to you? We have readers from Halifax to Vancouver, 5,000 of them, and it will be nearly 8,000 before the end of the year. The editors cannot interview you all personally but we would like to hear from each one what you would like us to publish to help you.

¶ Send along your suggestions, comments, opinions, plans and kinks. We pay for all useful ideas.

HOW TO SEND ARTICLES AND SKETCHES

¶ Bill Smith has told us that they couldn't write an article, but when we showed them how easy it was, they said they would become regular contributors. This is how to do it,—

"There's my friend, Bill Smith, over there. Poor fellow, he's having a hard time getting those rafters cut right (or it may be some other piece of work). I'll just sit down and write him a letter and draw him a little pencil sketch showing how to do it and he'll appreciate it."

Just keep Bill Smith in mind and write him a letter. Your idea will then be in shape for publication, only when the Editor is the "Bill Smith" that you are writing to, write on one side of the paper. The Editor will appreciate it and so will the men on the type-setting machines.

If you make a pencil sketch, attach it to your letter with a pin, putting your name and address on the outside of the envelope. If you send finished drawings, and wish them returned in good shape, send them in a tube or on the inside of an old magazine. This will prevent them creasing and being injured.

Write as many times as you like and address your communications to the

EDITOR

*The Canadian Builder
and Carpenter*

32 Colborne Street, Toronto

Price List of Building Materials—Continued.

Glass—Continued.	PRICE AT MONTREAL	PRICE AT TORONTO	PRICE AT WINNIPEG	PRICE AT VANCOUVER
101-105.....	.....	24.00		
106-110.....	.....	27.50		
Loss 1 per cent. L.C.B. Toronto				
Wired Glass.....	.....	20c. per sq. ft.		
Brick, Tile, Terra Cotta, Sewer Pipe				
No. 1 dry pressed red brick.....	19.50	\$18.00 per M	\$25.00 to 50.00	\$45.00 per M
No. 1 dry pressed buff bricks.....	20.50	18.00	25.00 to 50.00	45.00
Red stock bricks.....	11.00	12.00	13.00	13.00
Grey stock bricks.....	.....	11.00		
Wire cut bricks for foundation work.....	.....	11.00		
Porous terra cotta bricks.....	.....	15.00	\$15.00 per M	
No. 1 enamelled bricks, all colors, fire.....	.....	80.00 to 150.00	100.00	
Fire brick.....	25.00		45.00	45.00
Roofing tile.....	.....		.15 per ft.	
Sewer pipe, 4 inch.....	10c. foot	.....	.08½ per ft.	.14 per ft.
Sewer pipe, 6 inch.....	15c. foot	.....	.16½ per ft.	
Cement, Plaster, Stone, Etc.				
Cement (bags extra).....	1.80 bbl.	(\$1.80 bbl.)	\$2.50 per bbl.	\$3.00 per bbl.
Sand, for cement or brick work.....	1.00 ton	(1.55 m car lots)	1.75 a yard	
Lime.....	12.00	1.15 a yard	.32 per bu.	1.25 per bbl.
Hydrated lime.....	13.00	.35 cwt.	12.00 per ton	4.25 per bbl.
Mortar color.....	5.00 bbl.	10.00 ton	.05 per lb.	
Plaster of paris.....	2.35	black, 3; red, 1½	.05 per lb.	4.50 per bbl.
Crushed stone, 2 in.....	1.50 ton	2.50 bbl.	4.00 per bbl.	
Crushed stone, 1 in.....	1.60	1.40	2.50 per yard	
Crushed stone, ¾ in.....	1.75	1.45	2.75	
Hardwall plaster.....	\$12.50 neat	1.50	2.75	
	6.00 sanded ton	\$12.00 neat	12.00 per to	14.50 per ton
		4.00 sanded		
Gravel.....	1.85 ton		1.85 per yard	
Hair (plaster).....	.03 per lb.	.04 lb.	1.25per bale	14.50 per ton

NOTE TO READERS. We would be glad to have suggestions from readers as to the extension or modification of this list.

Free Inspection of Gas Piping Installations in Toronto

If you want to be sure that your men or your gas fitters are installing the proper sizes of gas pipes in any of your new buildings in Toronto let us know.

If you are an architect, a builder, or a contractor you will want good service rendered to your clients. An adequate gas supply is the remedy. To get good service,—pipes must be of sizes suitable to the building.

Our specifications give you the sizes necessary for good service. Some builders absolutely refuse to install piping of proper sizes, claiming that it is some game of the Gas Company. It is these same builders, and some others, that have forced us to expose the conditions as we find them. Poor pressure in many new Toronto homes and buildings is caused through the installation of too small gas piping, and we take this means of warning everyone against the practice.

Every person that wishes to have proper size pipes, can make sure what the pipe fitters are installing by notifying our Building Inspection Department. No charge is made for this service.

Send for Specification Card
Showing Proper Pipe Sizes to Use
when Piping Buildings for gas

The Consumers' Gas Co'y

Advertising Department

19 Toronto St., Toronto

Telephone Adelaide 2180

Cut out Coupon and mail to us

To THE CONSUMERS' GAS CO.
19 Toronto St., Toronto

Gentlemen:

Kindly send me further particulars, also specifications for piping buildings for gas.

Name.....

Address.....

High Grade Veneered Doors, Stair Work and Interior Finish

Q Because you have bought from a Concern which has treated you well that is no reason why we might not give you even better service and quality perhaps at a lower price. Try US with your next order.

We make a speciality of getting out all kinds of Pine and Hardwood trim to Architects' details. Send along your plans and specifications and details.

The Bryan Manufacturing Company, Limited

COLLINGWOOD, : ONTARIO

All Kinds of Interior Trim

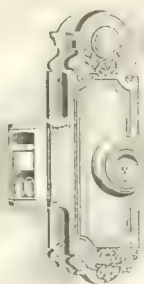
Having recently doubled the size of our plant, which was necessary owing to big increase in our business, we are now in excellent position to
DELIVER PROMPTLY

It will pay you to get our prices

on Plate Rail, Chair Rail, Room Moulds, all kinds of Interior Trim. Detail and Sticker Work a Specialty

The Builders' Moulding Company

95 Richmond St. W., Toronto



Builders' Hardware Mantels, Fireplaces

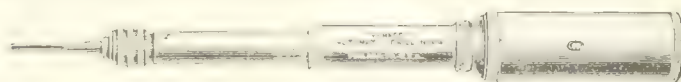
And Tile Work of All Descriptions

Our Line is Complete and Prices are Right

YALE HARDWARE

PRATT AND LAMBERT VARNISHES

KENT, GARVIN & Co., 160 King Street E., HAMILTON



SPECIAL OFFER—FOR ONE MONTH ONLY

We are offering to readers of the "Canadian Builder" the Yankee Automatic Drill No. 44, at the exceptionally low price of \$1.75 complete.

The nickel plated and polished metal handle contains 8 cast steel drills in sizes 1/16, 1/8, 3/16, 1/4, 5/16, 3/8, 7/8, 1 1/8 ins.

The Yankee Automatic Drill No. 41 is a good bargain at \$1.55

Remember, these reduced prices last for only one month, so place your order early to avoid disappointment.

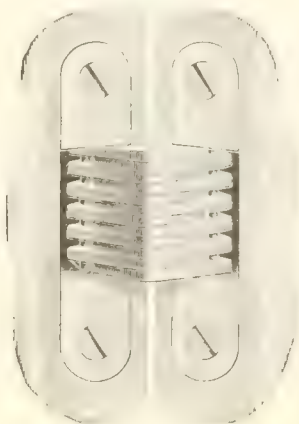
W. Walker & Son

(Wholesale Merchants)

1228 YONGE STREET
TORONTO

Soss Invisible Hinge

For use on Panel Work, Lockers
Closets, Counter Flaps, Partition
Doors, Cabinets, etc.

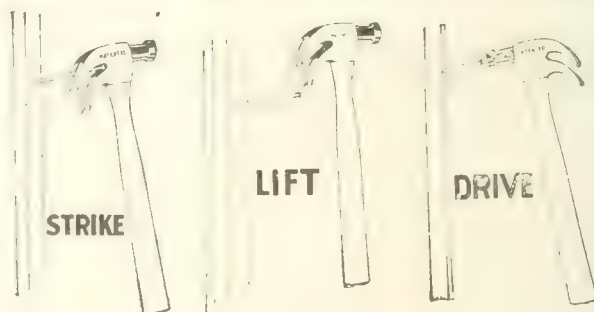


Soss Invisible Hinges are made in a variety of sizes, the largest being adapted for largest size door.

*Send for circular and prices; or buy from
leading Hardware Dealers*

SOSS INVISIBLE HINGE CO., LIMITED

104 Bathurst St., TORONTO



Great for high nailing. It pays for itself
almost at once. Make money using it.

Double Claw Hammer

To be obtained from
all Dealers



START

*Pulls the nail
out straight
without a
block.*



OUT



"YALE" MARKED LOCKS

The name Yale on a lock means positive security to millions of people all over the world—to the thousands in your locality.

From these Yale-Marked Locks has been developed a line of Yale Hardware so complete and so varied in designs and finishes, that it offers every advantage in carrying out your ideas.

Yale Locks and Hardware have the quality which will express and perpetuate your own good taste, and your clients will appreciate your specifying the Locks and Hardware they know most about.

Our booklet, "The Ghost and the Burglar," is both entertaining and instructive. Write for a copy.

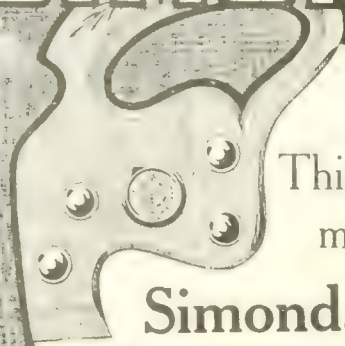
Canadian Yale & Towne Ltd.

Makers of Yale Products in Canada:

Locks, Padlocks, Builders' Hardware, Door Checks,
and Chain Hoists

General Offices and Works: St. Catharines, Ont.

SIMONDS



This year
more

Simonds Hand Saws

are being sold in Canada
than ever before.

There is a good reason.

The Saw is probably the best hand saw that has been or can be made today. The steel is Simonds' own Crucible Steel and the handles selected applewood. Every saw absolutely guaranteed. Let your Hardware Dealer explain more about this saw and show you samples or write us for further particulars.

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SAWS
are best
and they
ARE
the best**

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Canada Saw Co.
Limited**
St. Remi St. and
Acorn Ave.
Montreal, Que.

or **Simonds
Mfg. Co.
Fitchburg
Mass.**



SAW

CLASSIFIED DIRECTORY—A BUYER'S GUIDE FOR BUILDERS IN CANADA

- Asbestos.**
Asbestos Mfg. Co., Montreal.
Asbestos Goods.
Asbestos Mfg. Co., Montreal.
- Alabastine.**
Alabastine Co., Paris, Ont.
- Asphalt Felt**
Braid & McCurdy, Winnipeg, Man.
- Automatic Gas-Steam Boilers.**
Consumers' Gas Co., Toronto.
- Axes**
Jas. Smart Mfg. Co., Brockville, Ont.
- Barrows and Concrete Carts**
London Concrete Machinery Co., London, Ont.
- Bath Tubs.**
Standard Ideal Co., Port Hope, Ont.
- Beaded Sheets.**
Metal Shingle & Siding Co., Preston.
- Blind Hinges**
Jas. Smart Mfg. Co., Brockville, Ont.
- Bolts (Expansion).**
Freek, Clark & Co., Toronto.
- Brick Stains**
Braid & McCurdy, Winnipeg, Man.
- Bronze (Cast).**
W. H. Thornhill Co., Winnipeg.
- Builders' Elevators**
Stuart Machinery Co., Winnipeg, Man.
- Builders' Hardware**
Jas. Smart Mfg. Co., Brockville, Ont.
- Builders' Tools.**
W. D. Beath & Sons, Toronto, Ont.
Freek, Clark & Co., Toronto.
Kent, Garvin & Co., Hamilton, Ont.
- Butts and Hinges, Steel**
Jas. Smart Mfg. Co., Brockville, Ont.
- Burial Vault Molds.**
Ideal Concrete Machinery Co., London,
Casement and Sash (Steel and Bronze).
W. H. Thornhill Co., Winnipeg.
- Carts, Concrete**
London Concrete Machinery Co., London, Ont.
- Closets.**
Standard Ideal Co., Port Hope, Ont.
- Ceilings, Metal.**
Metal Shingle & Siding Co., Preston.
- Ceilings and Walls, Embossed Steel.**
Galt Art Metal Co., Galt, Ont.
- Cement (Portland).**
Braid & McCurdy, Winnipeg, Man.
Ontario Lime Association, Toronto.
- Cement Pools**
Wettlaufer Bros., Toronto, Ont.
- Cement Stains**
Braid & McCurdy, Winnipeg, Man.
- Cement Workers' Tools**
London Concrete Machinery Co., London, Ont.
- Colors for Concrete.**
Ideal Concrete Machinery Co., London,
- Concrete Block Machines.**
Ideal Concrete Machinery Co., London,
London Concrete Machinery Co., London, Ont.
Wettlaufer Bros., Toronto.
- Concrete Brick Machine.**
Ideal Concrete Machinery Co., London,
London Concrete Machinery Co., London, Ont.
Wettlaufer Bros., Toronto.
- Concrete Sill, Lintel and Dimension Stone Machines.**
Ideal Concrete Machinery Co., London.
- Concrete Mixers.**
Ideal Concrete Machinery Co., London.
London Concrete Machinery Co., London, Ont.
Stuart Machinery Co., Winnipeg, Man.
Wettlaufer Bros., Toronto.
- Concrete Tile Machines.**
Ideal Concrete Machinery Co., London.
Wettlaufer Bros., Toronto.
- Concrete Reinforcements.**
W. D. Beath & Sons, Toronto, Ont.
- Metal Shingle & Siding Co., Preston.**
- Construction Companies.**
Weber Mfg. Co., West Allis, Wis.
- Contractors and Builders.**
Weber Mfg. Co., West Allis, Wis.
- Contractors' Machinery**
Wettlaufer Bros., Toronto, Ont.
- Cornices, Galvanized or Copper.**
Galt Art Metal Co., Galt, Ont.
- Corrugated Sheets (Asbestos).**
Asbestos Mfg. Co., Montreal.
- Corrugated Sheets (Steel).**
Galt Art Metal Co., Galt, Ont.
Metal Shingle & Siding Co., Preston.
W. D. Beath & Sons, Toronto, Ont.
- Crabs**
Stuart Machinery Co., Winnipeg, Man.
- Cranes**
W. D. Beath & Sons, Toronto, Ont.
- Crestings.**
Metal Shingle & Siding Co., Preston.
- Crushers**
Wettlaufer Bros., Toronto, Ont.
- Curb Stone Machines.**
Ideal Concrete Machinery Co., London.
W. D. Beath & Sons, Toronto, Ont.
- Cutouts.**
Duncan Electrical Co., Montreal.
- Daylight Rods.**
Consolidated Plate Glass Co., Toronto.
- Damp Proofing**
Braid & McCurdy, Winnipeg, Man.
- Deadening Quilt**
Braid & McCurdy, Winnipeg, Man.
- Derricks.**
W. D. Beath & Sons, Toronto, Ont.
Ideal Concrete Machinery Co., London
London Concrete Machinery Co., London, Ont.
Stuart Machinery Co., Winnipeg, Man.
- Doors**
Wm. Rutherford, Sons & Co., Limited,
Montreal, Que.
The Bryan Mfg. Co., Collingwood, Ont.
- Doors (Wooden).**
Canada Lumber Co., Toronto.
L. A. DeLaplante, Limited, Toronto.
The Bryan Mfg. Co., Collingwood, Ont.
Georgian Bay Shook Mills, Limited,
Midland, Ont.
- Doors, Veneered**
The Bryan Mfg. Co., Collingwood, Ont.
- Door Trimmings.**
Metal Shingle & Siding Co., Preston, Ont.
W. H. Thornhill Co., Winnipeg.
- Doors (Sheet Steel and Bronze).**
W. H. Thornhill Co., Winnipeg.
- Drag Scrapers**
London Concrete Machinery Co., London, Ont.
- Driers**
London Concrete Machinery Co., London, Ont.
- Drill Grinders.**
Luther Grinder Mfg. Co., Milwaukee,
Wisconsin.
- Drinking Fountains.**
Standard Ideal Co., Port Hope, Ont.
- Eavestrough.**
Metal Shingle & Siding Co., Preston.
- Eave-Trough and Conductor-Pipe.**
Galt Art Metal Co., Galt, Ont.
- Metal Shingle & Siding Co., Preston.**
- Edge Tools**
Jas. Smart Mfg. Co., Brockville, Ont.
- Electrical Fixtures and Specialties.**
Duncan Electrical Co., Montreal.
W. H. Thornhill Co., Winnipeg.
- Expanded Metal.**
Galt Art Metal Co., Galt, Ont.
- Fences.**
Dominion Ornamental Iron Co., Ltd.,
Toronto.
- George B. Meadows, Toronto.**
- Finials.**
Galt Art Metal Co., Galt, Ont.
- Metal Shingle & Siding Co., Preston.**
- Fire Escapes.**
Dominion Ornamental Iron Co., Ltd.,
Toronto.
- George B. Meadows, Toronto.**
- Fireproof Windows.**
Galt Art Metal Co., Galt, Ont.
- Metal Shingle & Siding Co., Preston.**
- Flooring, Hardwood.**
Georgian Bay Shook Mills, Midland.
- Floor Scrapers**
Braid & McCurdy, Winnipeg, Man.
- Decatur Bull Co., Montreal.**
- Fox Supply Co., Brooklyn, Wis.**
- Hurley Machine Co., Limited, Toronto.**
- Forge and Rivet Heaters.**
Consumers' Gas Co., Toronto.
- Furnaces**
Jas. Smart Mfg. Co., Brockville, Ont.
- Furnaces, Hot Air.**
Hall Zyrd Foundry Co., Hespeler, Ont.
- Galvanized Chain Pumps.**
Metal Shingle & Siding Co., Preston.
- Galvanized Iron Cornices.**
Metal Shingle & Siding Co., Preston.
- Galvanized Tanks.**
Metal Shingle & Siding Co., Preston.
- Gas Blow Pipes.**
Consumers' Gas Co., Toronto.
- Gas Engines.**
Consumers' Gas Co., Toronto.
- Gas Furnaces.**
Consumers' Gas Co., Toronto.

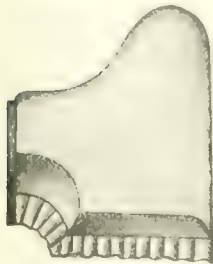


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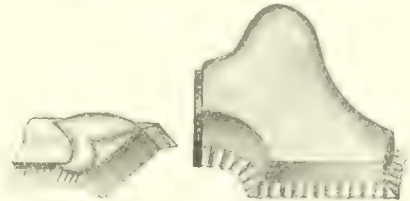
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"Acorn" Ideal Hip and Starter



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Preston, Ontario

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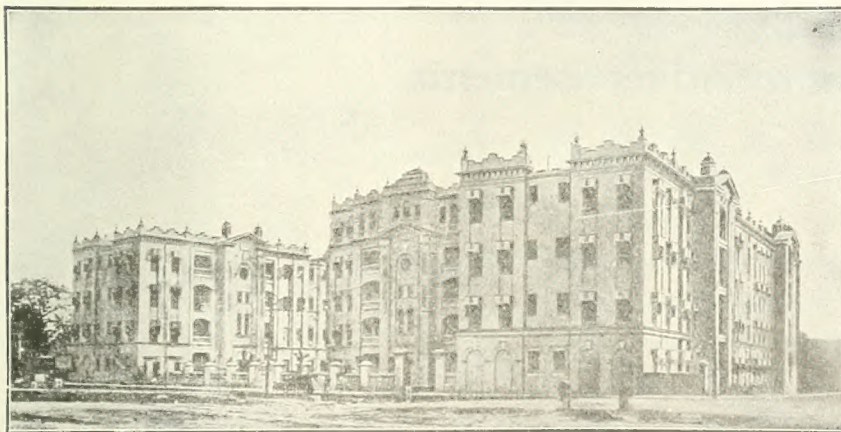


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- Gas Lighting Appliances.**
Consumers' Gas Co., Toronto.
- Gas Fixtures.**
Consumers' Gas Co., Toronto.
- Gasoline Engines.**
Ideal Concrete Machinery Co., London.
London Concrete Machinery Co., London, Ont.
Wettlaufer Bros., Toronto, Ont.
- Gas Piping.**
Consumers' Gas Co., Toronto.
- Gas Ranges.**
Consumers' Gas Co., Toronto.
- Gas Water Heaters.**
Consumers' Gas Co., Toronto.
- Gates.**
Dominion Ornamental Iron Co., Ltd., Toronto.
George B. Meadows, Toronto.
- Glass.**
Consolidated Plate Glass Co., Toronto.
The Toronto Plate Glass & Importing Co., Toronto.
- Glue Pot Heaters.**
Consumers' Gas Co., Toronto.
- Granite (Crushed).**
Sand & Supplies. Toronto.
- Gravel.**
Braid & McCurdy, Winnipeg, Man.
- Gravel Screens (Power).**
Ideal Concrete Machinery Co., London.
- Grinders, Tool.**
Luther Grinder Mfg. Co., Milwaukee, Wisconsin.
- Hair (Plasterers').**
Ontario Lime Association, Toronto.
- Hammers.**
Double Claw Hammer Co., Brooklyn, N.Y.
Lewis Bros., Montreal.
Jas. Smart Mfg. Co., Brockville, Ont.
- Hand Scrapers.**
Fox Supply Co., Brooklyn, Wis.
- Hardware.**
Weber Mfg. Co., West Allis, Wis.
- Herringbone Lath.**
Metal Shingle & Siding Co., Preston, Ont.
- Hoists.**
Ideal Concrete Machinery Co., London.
London Concrete Machinery Co., London, Ont.
Stuart Machinery Co., Winnipeg, Man.
Wettlaufer Bros., Toronto.
W. D. Beath & Sons, Toronto, Ont.
Wettlaufer Bros., Toronto, Ont.
- Hoisting Engines.**
London Concrete Machinery Co., London, Ont.
Stuart Machinery Co., Winnipeg, Man.
- Incinerators.**
Standard Ideal Co., Port Hope, Ont.
- Interior House Finish.**
L. A. DeLaplante, Limited, Toronto.
Georgian Bay Shook Mills, Midland, Ont.
The Bryan Mfg. Co., Collingwood, Ont.
Wm. Rutherford, Sons & Co., Limited, Montreal, Que.
- Jack Screws.**
Jas. Smart Mfg. Co., Brockville, Ont.
- Keene's Cement.**
Braid & McCurdy, Winnipeg, Man.
- Lath.**
Galt Art Metal Co., Galt, Ont.
The Bryan Mfg. Co., Collingwood, Ont.
- Lath (Metal).**
Braid & McCurdy, Winnipeg, Man.
- Laundry Tubs.**
Standard Ideal Co., Port Hope, Ont.
- Lime.**
Ontario Lime Association, Toronto.
- Lime, White or Gray.**
Braid & McCurdy, Winnipeg, Man.
- Lumber.**
Canada Lumber Co., Toronto.
The Bryan Mfg. Co., Collingwood, Ont.
- Mantels.**
Kent, Garvin & Co., Hamilton.
- Metal Roofing and Siding.**
Galt Art Metal Co., Galt, Ont.
- Mortar Cement.**
Braid & McCurdy, Winnipeg, Man.
- Mortar Colors.**
Manton Bros., 105 Elizabeth St., Toronto.
- Mortar Gauges.**
Ontario Lime Association, Toronto.
- Mortar Mixers.**
Ideal Concrete Machinery Co., London.
- Mortar Stains.**
London Concrete Machinery Co., London, Ont.
- Mouldings.**
Braid & McCurdy, Winnipeg, Man.
- Mouldings.**
The Bryan Mfg. Co., Collingwood, Ont.
Builders' Moulding Co., Toronto.
L. A. DeLaplante, Limited, Toronto.
Georgian Bay Shook Mills, Limited, Midland, Ont.
Wm. Rutherford, Sons & Co., Limited, Montreal, Que.
- Nails (Self-clinching).**
Freek, Clark & Co., Toronto.
- Ornamental Iron Work.**
Dominion Ornamental Iron Co., Ltd., Toronto.
George B. Meadows, Toronto.
- Ornamental Molds.**
Ideal Concrete Machinery Co., London.
- Paints (Waterproof).**
Freek, Clark & Co., Toronto.
- Paint Protective.**
Braid & McCurdy, Winnipeg, Man.
- Plaster.**
Alabastine Co., Limited, Toronto.
Ontario Lime Association, Toronto.
Braid & McCurdy, Winnipeg, Man.
- Plaster (Hardwall).**
Alabastine Co., Paris, Ont.
Ontario Lime Association, Toronto.
Crown Gypsum Co., Lythmore, Ont.
- Plaster Corner Bead.**
Metal Shingle & Siding Co., Preston.
Braid & McCurdy, Winnipeg, Man.
- Plaster Paris.**
Alabastine Co., Paris, Ont.
Ontario Lime Association, Toronto.
- Plaster Stains.**
Braid & McCurdy, Winnipeg, Man.
- Plumbing Goods.**
Standard Ideal Co., Limited, Port Hope.
- Pulpstone.**
Alabastine Co., Paris, Ont.
- Pumps.**
Jas. Smart Mfg. Co., Brockville, Ont.
London Concrete Machinery Co., London, Ont.
Stuart Machinery Co., Winnipeg, Man.
Wettlaufer Bros., Toronto, Ont.
- Railings.**
Dominion Ornamental Iron Co., Ltd., Toronto.
George B. Meadows, Toronto.
- Receptacles (Electrical).**
Duncan Electrical Co., Montreal.
- Registers.**
Jas. Smart Mfg. Co., Brockville, Ont.
- Ridge, Galvanized.**
Metal Shingle & Siding Co., Preston.
- Ridgings.**
Metal Shingle & Siding Co., Preston.
- Rock Crushers.**
Wettlaufer Bros., Toronto, Ont.
- Roofing.**
Asbestos Mfg. Co., Montreal.
W. D. Beath & Sons, Toronto, Ont.
Galt Art Metal Co., Galt, Ont.
Metal Shingle & Siding Co., Preston.
Patterson Mfg. Co., Limited, Toronto.
Braid & McCurdy, Winnipeg, Man.
- Roofing Tile Machines.**
Ideal Concrete Machinery Co., London
- Sand.**
Braid & McCurdy, Winnipeg, Man.
- Sand and Gravel.**
Sand & Supplies. Toronto.
- Sand Sifting Machines.**
London Concrete Machinery Co., London, Ont.
- Sash.**
The Bryan Mfg. Co., Collingwood, Ont.
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Wm. Rutherford, Sons & Co., Limited, Montreal, Que.
The Bryan Mfg. Co., Collingwood, Ont.
- Sash Balances.**
Freek, Clark & Co., Toronto.
- Sashes and Doors.**
Pembroke Lumber Co., Pembroke, Ont.
- Scraper Knives.**
Fox Supply Co., Brooklyn, Wis.
- Scrapers.**
Decatur Bull Co., Montreal.
Fox Supply Co., Brooklyn, Wis.
Hurley Machine Co., Toronto.
- Scrapers, Drag.**
London Concrete Machinery Co., London, Ont.
- Scrapers, Wheel.**
London Concrete Machinery Co., London, Ont.
- Scraper Sharpening Device.**
Fox Supply Co., Brooklyn, Wis.
- Screens, Sand.**
London Concrete Machinery Co., London, Ont.
- Screens and Sidewalk Tools.**
Wettlaufer Bros., Toronto, Ont.
- Seats, Implement.**
Galt Art Metal Co., Galt, Ont.
- Sewer Pipe.**
Ontario Lime Association, Toronto.
- Sewer Pipe Molds.**
Ideal Concrete Machinery Co., London.
- Sharpening Machines.**
Luther Grinder Mfg. Co., Milwaukee, Wisconsin.
- Shingles, Galvanized Steel.**
Galt Art Metal Co., Galt, Ont.
- Shingles.**
The Bryan Mfg. Co., Collingwood, Ont.
- Shingles, Metal.**
Metal Shingle & Siding Co., Preston, Ont.
- Shingles, Wood.**
The Bryan Mfg. Co., Collingwood, Ont.
- Shingle Stain.**
Braid & McCurdy, Winnipeg, Man.
- Sidewalk Dividing Plates.**
London Concrete Machinery Co., London, Ont.
- Sidewalk Forms, Steel.**
London Concrete Machinery Co., London, Ont.
- Sill and Cap Molds.**
Ideal Concrete Machinery Co., London
- Sockets, Brass and Porcelain.**
Duncan Electrical Co., Montreal.

CLASSIFIED DIRECTORY—Continued

- Soil Pipe.**
Standard Ideal Co., Port Hope, Ont.
Soil Pipe Fittings.
Standard Ideal Co., Port Hope, Ont.
Soldering Iron Heaters.
Consumers' Gas Co., Toronto.
Sound Deadener
Braid & McCurdy, Winnipeg, Man.
Shooks.
Georgian Bay Shook Mills, Midland,
Skylights.
Metal Shingle & Siding Co., Preston,
Galt Art Metal Co., Galt, Ont.
Sidewalk Prisms.
Consolidated Plate Glass Co., Toronto.
Siding, Steel.
Galt Art Metal Co., Galt, Ont.
Sill and Cap Molds.
Ideal Concrete Machinery Co., London,
Sinks (Kitchen and Wash).
Standard Ideal Co., Port Hope, Ont.
Spanish Roofing Tile Machines.
Ideal Concrete Machinery Co., London,
Stairs, Iron.
Dom. Ornamental Iron Co., Ltd., Toronto
George B. Meadows, Toronto
Stairways
The Bryan Mfg. Co., Collingwood, Ont.
Stanchions.
Metal Shingle & Siding Co., Preston,
W. D. Beath & Sons, Toronto, Ont.
Steel Buildings and Garages.
Metal Shingle & Siding Co., Preston,
W. D. Beath & Sons, Toronto, Ont.
Steel Ceilings and Walls.
Galt Art Metal Co., Galt, Ont.
Steam Engines
Wettlaufer Bros., Toronto, Ont.
- Stone (Crushed).**
Ontario Lime Association, Toronto.
Sand & Supplies, Toronto.
Store Front Bars.
Consolidated Plate Glass Co., Toronto.
Store Fronts
Braid & McCurdy, Winnipeg, Man.
Terra Cotta.
Braid & McCurdy, Winnipeg, Man.
W. H. Thornhill Co., Winnipeg.
Toronto Plate Glass Importing Co., To-
ronto.
Thimbles.
Metal Shingle & Siding Co., Preston,
Tile Work
Kent, Garvin & Co., Hamilton.
Tile (Hollow)
Braid & McCurdy, Winnipeg, Man.
Tile Machine, Drain
London Concrete Machinery Co.,
London, Ont.
Tile Machine, Sidewalk
London Concrete Machinery Co.,
London, Ont.
Ties (Brick)
Braid & McCurdy, Winnipeg, Man.
Tool Grinders.
Luth. Grinder Mfg. Co., Milwaukee,
Wisconsin.
Tool Sharpeners.
Luther Grinder Mfg. Co., Milwaukee,
Wisconsin.
Transmission Machinery
Stuart Machinery Co., Winnipeg, Man.
Urinals.
Standard Ideal Co., Port Hope, Ont.
Valley, Galvanized.
Metal Shingle & Siding Co., Preston, Ont.
- "V" Crimp Roofing and Siding.**
Metal Shingle & Siding Co., Preston
Ventilators.
Galt Art Metal Co., Galt, Ont.
Metal Shingle & Siding Co., Preston,
Wall Board
Braid & McCurdy, Winnipeg, Man.
Wall Plugs.
Ideal Concrete Machinery Co., London,
Wall Coating.
Alabastine Co., Paris, Ont.
Warm Air Heaters
Jas. Smart Mfg. Co., Brockville, Ont.
Waterproof Paper
Braid & McCurdy, Winnipeg, Man.
Waterproofing.
Ideal Concrete Machinery Co., London,
W. H. Thornhill Co., Winnipeg.
Watering Bowls for Stock.
Metal Shingle & Siding Co., Preston,
Weather Strips.
William Pease Co., Hamilton.
Window Frames—Complete.
Pembroke Lumber Co., Pembroke, Ont.
Window Frames
The Bryan Mfg. Co., Collingwood, Ont.
Window Trimmings.
Metal Shingle & Siding Co., Preston,
W. H. Thornhill Co., Winnipeg.
Wire Rope
Stuart Machinery Co., Winnipeg, Man.
Wire Work.
George B. Meadows, Toronto.
Woodworkers.
Elliot Woodworker Co., Toronto.
Parks Ball Bearing Machine Co., Cincin-
nati, Ohio.
M. Hutchinson, Toronto.



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174 STONE ROAD

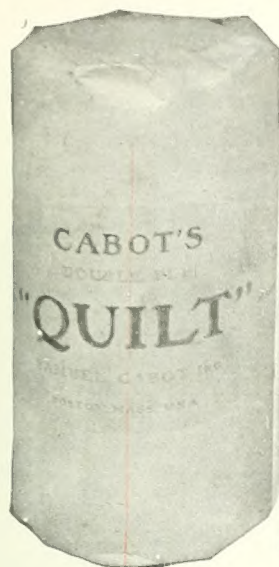
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GALT, ONT.

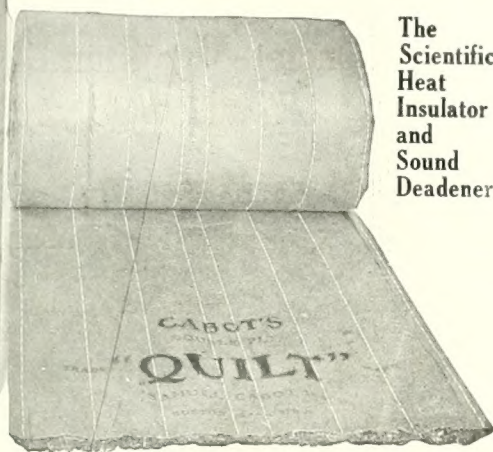
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BRAID & McCURDY



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"QUILT"**



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Sound
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NON-CONDUCTOR OF COLD
NON-CONDUCTOR OF SOUND

**CABOT'S CREOSOTE
SHINGLE
STAINS**



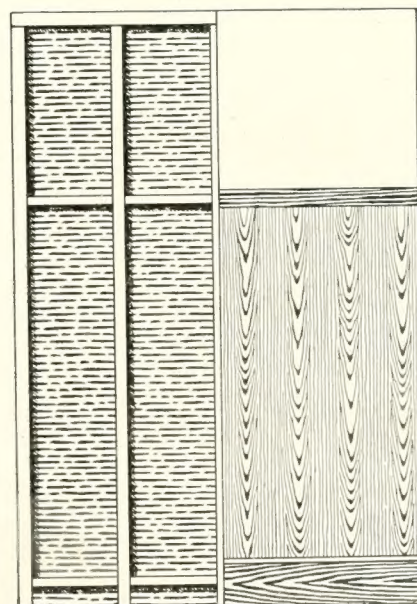
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CABOT'S CEMENT STAINS
CABOT'S PLASTER STAINS
CABOT'S MORTAR STAINS



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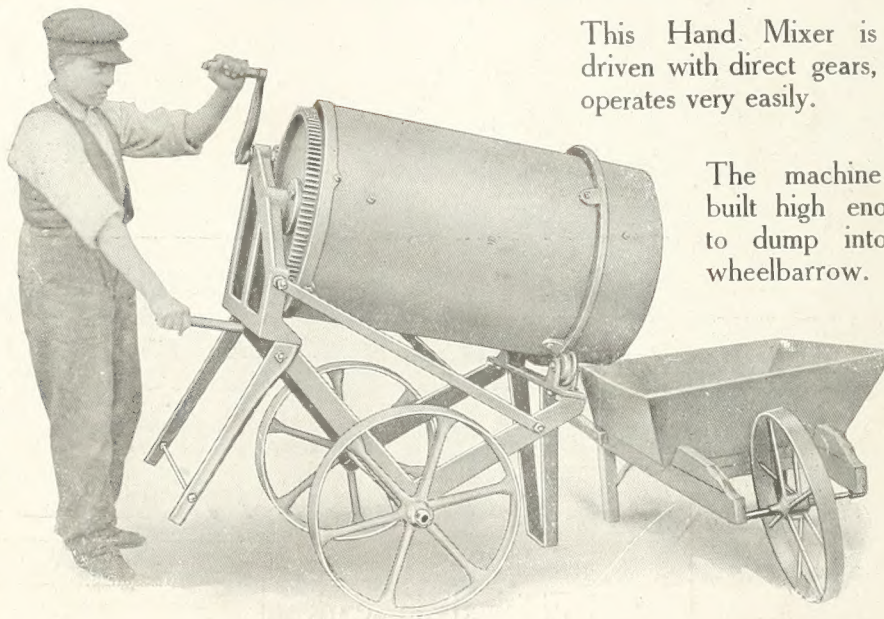
OFFICE PHONES:
Main 5284 1232
WAREHOUSE PHONE:
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The Wettlaufer Hand Mixer

will save the labor of Two or Three men

Give up Mixing Concrete by Hand
Buy a Wettlaufer Mixer. It will pay you well

Send for Catalogue and Prices



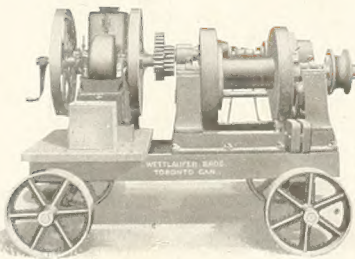
¶ This is the very machine for foundations, cellar floors, cement walks, etc.

This Hand Mixer is all driven with direct gears, and operates very easily.

The machine is built high enough to dump into a wheelbarrow.

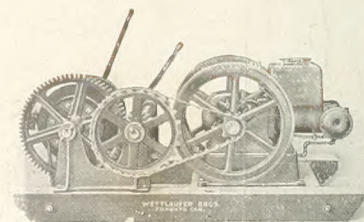
¶ If you haven't enough work for a power mixer, this machine will be a paying investment.

Builders' Hoists. In 14 different types and sizes, from \$85 to \$1950.



From this range you will certainly be able to get a Hoist to suit your requirements, from the largest to the smallest job. Hoists are equipped with Wettlaufer gasoline engine or steam or electric power as required.

Mr. Builder, if you are not now using a Wettlaufer Hoist, send for our Hoist Catalogue. There's every chance that a saving of from 50 to 80 per cent. can be effected for you. Give us a chance to demonstrate.



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